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Highlight



The first version of their website was passable at best. Zensorium needed to clean up its online identity.

Kilo's creative director, Benjy Choo talking about their latest project, Tinké.

Page 26

WordPress themes? We've got it all sewn up...

elcome to the latest issue of Web

Designer magazine. This WordPress
is a bit great, isn't it? Its LEGO-like
modularity makes it easy to mix,
match and build various elements
together to create something new
with every project. There's always a
new facet to explore and a new

extension to exploit, but we've gone well out of the way to doing things a little differently this issue.

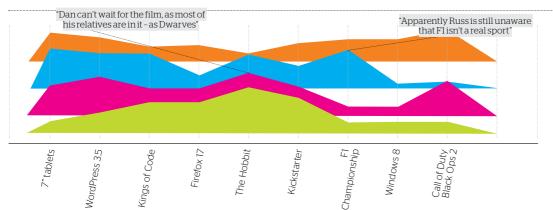
While we usually make the most of the various pre-manufactured blocks, this time we're turning the concept right on its head by showing you how to construct your own, completely bespoke, WordPress

theme from the ground up. There's no better way to master its inner workings and no better way to ensure your next project truly stands out from the crowd. Get started today by heading straight to page 38 for our ten-page feature.

Elsewhere this month we take a short trip up the motorway to visit the digital superstars of Bartle Bogle Hegarty. The globally recognised agency reveals how it created the celebrated Audio tagline, Vorsprung durch Technik, and kickstarted a long-standing campaign of cool for Levi's jeans with its Launderette campaign. BBH also offers incredible insight into its workings, and we take a look at its latest projects, starting on page 30. Russell Barnes

WordPress's modularity makes it easy to mix, match and build elements

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Excitographic

Plotting the features that got us in a frenzy over the month...

- ✓ Steve Jenkins, Features Editor
- ✓ Russell Barnes, Editor
- Daniel Duke, Designer
- Ben Martin, Sub Editor

Turn over to the contents to discover what's going to get you excited this issue...

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This issue's panel of experts

Welcome to that bit of the mag where we learn more about the featured writers and contributors...



Create the component parts and put together a bespoke WordPress site !!!

Known as TDH for short, Thord is an author, web designer and WordPress expert. This issue he reveals the art of a building a custom WordPress theme from start to finish. Discover how to create the component parts and put together a bespoke WordPress site. Page 38



Mark Shufflebottom



Mark Shufflebottom is the programme leader of BA (Hons) Digital Media Design at Bournemouth University and an Adobe Education Leader. In this issue he demonstrates how to take an existing site and make it responsive. **Page 70**



Louis Lazaris



front-end developer living in Canada. He writes for a number of design blogs, including his own site Impressive Webs. This issue he shows us how to build a classic content slider with jQuery and CSS3. Page 48



Sam Hampton-Smith



standards, Sam Ioves getting the most out of HTML and CSS. This issue he reveals the secrets behind creating a clever and imaginative 3D navigation system using CSS3 and Meny.js. Page 58

Pete Simmons



Pete is a Digital Marketing Manager for Lionhead Studios in Guildford. Pete also specialises in front-end development, PHP and social APIs. This issues he shows how to capture video from a webcam using HTML5. Page 54

Adam Smith



Photoshop expert on our ister publication Advanced Photoshop. This issue he uses his vast knowledge to unveil the secrets and techniques behind creating the stitch effect found on this issue's cover. Page 64

Matt Gifford



Matt Gifford is a lead RIA consultant developer and industry author from Cambridge, who specialises in ColdFusion and AIR development. This issue sees him add authentication and security to the Grails app built in part 1. Page 88

Louis Simoneau



Louis slings Ruby on Rails for Flippa, and hosts the SitePoint podcast for designers and developers This issue he returns to **Web** Designer and reveals how to tune up your website with Google Chrome's Developer tools. Page 84

Tim Stone



Tim Stone is a front-end developer who graduated from Bournemouth University with a 1st class degree in Interactive Media Production. In this issue he looks at Deferred objects in jQuery with the aid of some scaly reptiles. Page 92

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inside issue 203

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Cutting-edge features, techniques and inspiration for web creatives

Chat with the team and other readers and discuss the latest tech, trends and techniques. Here's how to stay in touch...

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Crowdsource

We respond to your latest letters and tweets

Comment: Dries Van haver We should be striving for nothing less than perfection - it's all it takes to succeed...

Comment: Richard Miller Sensio Labs UK's Richard Miller thinks it's time to realise the potential of Symfony2





Profile: Bartle Bogle Hegarty We talk to the global sensation behind Audi and Levi's



Design Diary: Tinké Kilo shows us how they attacked their latest project



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On the free CD

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Dynamic updates Stav fresh with this content switcher

Add an extra dimension 3D CSS navigation using Menyis



Don't get stitched up Learn how to sew in Photoshop



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Make your site responsive in easy steps

Web workshop Recreating the web's hottest styles





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It only takes a sprinkling of CSS to turn an existing site into an ultra-modern responsive design



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Discussing the hottest topics in the web design world

If you have a creative project, new web product or great designer story, contact the editorial desk

🚫 webdesigner@imagine-publishing.co.uk 🜔 @WebDesignerMag



Do you suffer from web envy?

How good is your website and are you envious of others? According to a survey from Decibel Technology the answer is yes. But why?

ccording to figures released from Royal Pingdom (www. pingdom.com), at the end of 2011 the number of websites had hit a staggering 170 million. That's roughly one site for every 40 people on earth.

It might be hard to imagine such a massive number, but it's even harder to imagine that even one per cent of these are worthy of a view. Web design is a subjective and emotive persuasion, and design plays a huge part in the success of any site. Admittedly, a successful site is not based on the aesthetic alone functionality and load times play a key role, but it is the aesthetic that draws the viewer to investigate further. A site needs to be inviting and attractive to tempt users to spend their precious bandwidth on a specific site.

Web designers will know better than most how many hours go into a design. By their very nature, most designers are perfectionists and are rarely completely happy with a finished project. Time and

budget can play a big part in the outcome of a project, but compromise is another major factor in the end result. Single-person projects offer less compromise, but the outcome can still be the same: web envy

The constant viewing of a design as a project progresses can mean that the initial excitement is easily lost come the end of the project. There is often a brief honeymoon period where a site design is admired and adored, but it doesn't take long for the designer or designers to start thinking of tweaks and improvements they want to make. A look across the web will soon reveal the extent of how envious many designers are of other sites

A recent survey from Decibel revealed that over a third of website owners thought that a competitor's site was better. Nearly 50 per cent of those surveyed suggested they would not do business with a site that was out-of-date and was hard to navigate. This

immediately suggests two things. First, the design is important. Second, so is the user experience.

Ben Frain's website: benfrain.com

So, is web envy a good thing and what does it achieve? Web envy can undoubtedly have a positive effect. Designers, technical staff and even non-technical staff can all have an input. The web is awash with great examples of websites that work. Everyone has a favourite, but what is it that makes a site a favourite. It is the layout, design, fonts or features? Or maybe it's the site's functionality or user experience? Whatever it is, the designer has to ensure that all the elements are thrown into the mix and evaluated accordingly.

As the design process takes off the website will start to take shape. Along the way decisions will be made that will reshape the original brief, but who gets to make these decisions? If it's a single person, they will believe in what they are implementing, but will the rest of the company/business? Who gets to make

the decision, senior management? The web designer? If it's a committee-based affair, then decisions will be based on a vote. Will this be unanimous? That's highly unlikely, which instantly means that certain committee members will not be happy with the outcome, leading to web envy yet again.

There is no single answer to a successful site-building process. Human nature dictates that people will have different opinions. There is no doubt that features will get left out, functionality will get left out and web envy will rear its head again. The only answer is to use it in a positive manner and make sure that it doesn't affect business



The inspirational SimpleBits site

news

How good is your website?

Design is a subjective and emotive issue. but the reasons for a rebuild still remain very much the same

don't actually think their own company website represents their brand

think a company's website influences their opinion of an organisation

would be put off working for a company with a poor web presence

consider not doing business with a company

that has an out-of-date or

hard to navigate website

competitor's company website is better than

their own

Reasons for rebuilding

rebranding

growth in the focus in the organisation organisation

Source: provided by Decibel technology (www.decibeltechnology.com)

Your Tweets

Web Designer posed the question 'What, or who, inspired the design and style of your website? What sites do you aspire to?



@MichaelRumsby



COMMENT Ben Harris Managing director at Decibel Technology

"Web envy is great if it inspires businesses to act faster at improving their web presence. Our study

shows people are going online to validate companies, but that the companies are failing at the first hurdle. It's not that these companies don't understand the value of their web presence but rather that in many cases they just don't have the CMS tools in place to make the changes they need to, and it's taking over half of them at least a year to get the budget approved in order to put the right ones in place - so no wonder they're envious of competitors. More companies should recognise at board level that websites are fixed assets and treat them as such; that is, to put time and investment into generating the maximum return on investment from them. Putting software in place that helps them squeeze more leads and sales out over a much longer period is now the game they should be in. They need to be able to grow or evolve their website as a company grows up, not wait for it to date and become ineffectual before creating a new one. Our message is you that you don't need to start from scratch every time. With the right CMS, you can most certainly keep ahead and be the Jones' - not simply keep up with them. To do this the CMS industry must make it easier for businesses to navigate the CMS maze. There are lots of variables to consider when purchasing a CMS, but the number one thing to remember is that you should ensure your CMS investment works for your business today - and tomorrow."



Front-end web developer and technology writer

I've always been a big fan of Dan Cederholm's work, and I think the main navigation on my site shows some obvious influence taken from his

simplebits.com website, particularly the rollover for Home on the logo. That implementation was unashamedly lifted from his site (sorry Dan)!

I used to have a big inferiority complex when it came to other people's websites versus my own, and would often pore over site inspiration websites and galleries. However, I find the older I get, the less I care about that. I've just accepted that I'm never more than a few clicks away from sites that make me feel 'if only I could have made that'.

I find I'm more impressed now by sites that handle large swathes of content and categories gracefully across multiple devices and viewports. I think there's certainly a trend toward simplicity in site design for this very reason, and I'm a big fan of that.

I'm only just getting seriously into typefaces, so I'd probably look at those I've used and their relationship to each other on my site before anything else."

Stop slacking and get more productive

Are you running at full capacity? Do you finish projects on time? Are you easily distracted? Do you spend too much time on Twitter and Facebook? Here's a few pointers on maximizing your time and talents

you are already running at full capacity, offering maximum productivity, then congratulations on your impressive efficiency.

However, if you are in the more common strand running at less than a hundred per cent, then there is room to increase your productivity and make yourself - and where you work - both much, much happier

Whatever the working environment there will be distractions. These can come in many guises - colleagues, Facebook, Twitter - and need to be dealt with accordingly. The first step to increased productivity is to block as many external distractions as possible This could be as simple as sticking on a set of headphones and blotting out the noise with some music.

The next step is far more difficult, taking control of yourself. Your personality type will dictate to a certain degree how efficient and productive you are. If you are the type of person that is easily distracted and finds it difficult to get organised then you are more in need of help that your more efficient counterparts. Those who are better organised will be more productive. Start by talking to the more efficient for a few

tips. Alternatively, have a browse through our '10 steps to becoming more productive' boxout. As always, actually sticking to a list will help, but what if you simply cannot adhere to suggestions?

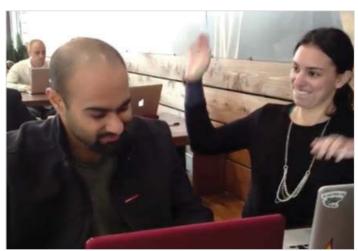
Maneesh Sethi took a more extreme approach to increase his productivity by hiring a girl to slap him each time he got off task. He decided that he needed help to make him improve productivity. He started his campaign by placing an ad on craigslist, 'I'm looking for someone who can work next to me at a defined location (my house or a mission cafe) and will make sure to watch what is happening on my screen. When I am wasting time, you'll have to yell at me or if need be slap me.

As ridiculous as the idea may sound. and he had to pay them \$8 an hour, the experiment was a success. Sethi states: "My average productivity runs around 35-40 per cent on most days. When Kara sat next to me, my productivity skyrocketed to 98 per cent."

This is a fascinating insight into how to increase productivity, albeit not the most conventional approach. Check out the whole story, including video at bit.ly/ PzRAgH. Perhaps we are about to see a whole new job category open up.



being slapped is probably not the most efficient, but it is certainly effective. Blogger Maneesh Sethi performed an experiment where he employed an assistant to slap him to stop wasting time on Facebook. A 63% increase in productivity is an undoubted success.



Maneesh Sethi improved his productivity by 98% after hiring a little help

<news cloud>

Bite-sized coverage of the month's trending topics

Get ready for jQuery 2.0

According to the official blog, jQuery 1.8 is getting a spring clean, jQuery 1.9 is due in early 2013 and 2.0 will appear not long after that. What's the difference between them? The release of jQuery 2.0 will finally see support for IE6/7/8/ removed and look to offer a smaller size and better performance API support will be unaffected with 1.9 and 2.0 being interchangeable.

\Jack Dorsey's mobile payment service launches in Canada in its first foray

35%

Pantone Canvas, powered by Behance, lets designers showcase and promote

their work through their

The latest release goes responsive with

New Office Web Apps built with HTML5

Microsoft has re-engineered its Office Web Apps, building them in HTML5 to offer better browser compatibility. The new apps have been fine-tuned to work correctly with IE10. Windows 8 and iOS 6. The new apps will be available through SkyDrive and outlook.com.

The not-quite-seven inch iPad is finally here, to a lukewarm reception the help of Bootstrap

10 steps to becoming more productive

A few commonsense suggestions will help ensure that your days are far more productive

Just start

There is no point in avoiding a task that has to be completed. Stop wasting time and get started on a task as quickly as possible.

Get organised

Organise everything. Getting organised will immediately help your productivity. Ensure that you have all the tools you need for a task before getting started. Organise your files and folders in to a logical, easy to follow order and make sure files are named for easy referencing at a later date.

Make a list

03 This is a simple but effective method. Write down all the task that need to be achieved. This can be for the day week or even month if you are feeling particularly adventurous. Logically, stick with the day ahead.

Prioritise tasks

04 Making a list will help realise what tasks have to be achieved. However, as with all tasks some will need to be completed before others. Arrange tasks so that the most pressing is completed first.

Start with the hardest

This follows on from making a list and prioritising tasks. If certain tasks have the same priority, then you should start with the task you deem to be the most difficult. Once this is completed, the tasks will get progressively easier and you will become more productive.

Remove distractions

There is no doubt that distractions will ruin productivity. This could be a talkative colleague, social media outlets or general office noise. Stick on a pair of headphones and listen to your favourite music to keep focused, and only use the Web for research.

Set time limits

A task should only take a certain length of time. Allocate a time period to a task and stick to it as best as you can. Be realistic when setting a time limit. Too short a time will be counter-productive.

Break down tasks

08 If you have a mammoth or daunting task on your hands, don't panic. Break it down into logical and smaller sub-sections and start at the beginning. If necessary, breakdown the sub-sections into smaller chunks as well.

Learn keyboard shortcuts 09

This is more of a practical tip, but one that will help improve productivity no end. Learn as many shortcuts as you can, start with the more obvious, and remove the hassle and time-killing task of opening endless menus.

Don't multitask

Research has shown that multitasking is less productive. Constant Interruptions will break your concentration and disrupt your workflow making it more difficult to restart a task.

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10 keyboard shortcuts

Memorise this quick collection of Mac shortcuts for increased efficiency

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Return

t unresponsive apps

esc

trade secret

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1000 e-mail accounts (2GB)	3000 e-mail accounts (2GB)	5000 e-mail accounts (2GB)	Unlimited e-mail accounts (2GB)
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Your emails, tweets, forum comments. The social network, but in print

This month we search for alternatives to WordPress and give eCommerce startup advice

Subject A WordPress alternative

From George Stavin



WordPress has been my web publishing platform of choice for a while now, but I am looking to change. The problem is, I have no idea what my next step should be. I know there are plenty of alternatives out there including Joomla, Drupal, concrete5, Squarespace, and Tumblr, but I don't really want to try them all to find out which one suits my needs. Which CMS would you recommend, and if I can be a bit cheeky will you be doing any tutorials on it?

As you might have guessed we at **Web Designer** are big fans of the WordPress platform. It's free, easy to set up, has a huge library of themes and plug-ins and is extremely popular with the design and development community. However, if you are looking for an alternative we would recommend Joomla. It offers a whole set of powerful features straight out of the box and is now

mobile-friendly thanks to the Bootstrap framework. We think that the other CMSs mentioned don't have the flexibility or power of either WordPress or Joomla.



Web Kit

Discover the kit needed to help create inspirational and interactive webpages



Create a fullscreen image gallery with jQuery bit.ly/OSZgup



Secure WordPress and stop the hackers bit.ly/Q7cYpy



Ten must-know Sublime Text 2 tips bit.ly/QA4DJK

Subject Starting a shop From Nathalie Rocchi



I have just finished putting together my latest project and for the first time I have decided I am going to include a shop. Problem is, I have no idea where to begin. I have decided to start out small, around ten products, and will be looking to expand in the future. Any recommendations?

The search for an effective and suitable eCommerce solution is not an easy one. There are plenty of options on the market, but as you are starting out small we suggest that you try Big Cartel (bigcartel.com). This offers a free online shop for up to five products and charges \$9.99 a month up to 25 products. And it's customisable, making it easy to match a site.

Subject Learning from scratch

From Simon Barclay



Hi guys. Due to a back injury (better now) I spent three years sat on my PC, eight hours a day! Some serious learning from scratch and building later, and my website is now finished (to the relief of my wife, she has plenty of DIY lined up). I'm now a dab hand at JavaScript and jQuery, and I sleep and eat HTML. It looks like I'm going to now change my career. Who knows? Someone suggested I should submit it to your magazine. Could you check it out and see what you think? www. abbey-hey-domestics.co.uk.

Web Designer welcomes you to the design community and we are always happy to take a look at the skills of new designers and developers. Readers, take a look, let Simon know what you think, and maybe offer some advice on where he can go next?

Subject Sticky disc issues

From Ken Toll

I'd like to provide customer feedback on the method used to secure the CD to the magazine. Basically, it is impossible to remove the recourse disc without damaging both the CD sleeve and the magazine.

This is an issue that **Web Designer** is looking to resolve as soon as possible. We think that with the introduction of the cardboard wallet and a different glue we are pretty close to getting it right. We just

Joomla offers a set of powerful features straight out of the box, and is now mobile-friendly

Join the conversation as it happens on Twitter ② @WebDesignerMag Comment on the news and opinion ⑤ www.webdesignermag.co.uk Email the editorial team at ② webdesigner@imagine-publishing.co.uk

tried to get the disc off the back of Issue 201. With a little persuasion and patience we managed to get it off with a single rip in the page.

Subject Digital edition

From Quan Nguyen

I have a subscription for the **Web Designer** print issues. I recently found that there is an iPad app you can download to view copies of **Web Designer**.



I was wondering if I'd have to pay for another subscription to view my issues on the iPad. Could you please advise?

Currently, the print subscription and the iPad app are two completely different entities in terms of subscriptions. If you wish to purchase the magazine via the iPad, you will have to pay for this as well as any physical copies you have purchased. The current setup allows the user to choose which option they wish to subscribe to, and it allows us to keep the price down.





Comments from the Blog



Web Designer is always keen to hear from its readers, followers and visitors. Here we bring together a specially selected collection from the last month. A few comments on the WordPress feature 'Secure WordPress and stop the hackers' (bit.ly/TDRSP1)



Mark said: WordPress is a very powerful platform and great for search engine optimisation once it's configured, but I do feel the WordPress team could do more to secure the scripts.



Bobby Anderson said: There's a great security plug-in called WordPress Firewall 2 that I'd recommend installing from the second you've installed the system. wordpress.org/extend/plug-ins/wordpress-firewall-2.



Paul said: To improve your security I also say the first thing you should do is remove the admin user from your site. This is the first username hackers will use to get into your admin area.

A specially selected collection of tweets from our 20,000+ twitter followers



@F Maile halleluiahIII

@WebDesignerMag has written a beginner's guide to using GitHub. Finally I'll understand what all the fuss is about ·)



@ClawsDesign Now subscribed to the @WebDesignerMag - I would highly recommend it to anyone interested in improving their designs!



@jgtweeting Currently doing an online course from Jeffery Way. Was completely made up to see him in @WebDesignerMag



development

Strive for perfection

Dries Van haver is the strategic partner and UX designer at Lavagraphics, a resourceful graphic unit based in Belgium's capital of creativity, Ghent. He focuses on online content with a keen eye for both usability and design.



Dries Van haver

Perfection is all it takes to be a great interactive designer

am glad that I was born in an era where smartphones didn't exist, my life always being posted on so-called social networks, Liked and shared by many. For those who recognise themselves in the same category, they will agree that communication was slow, but at least personal. We learned to lay an eye on the detail, check and double-check. Why? Because we had the time. Because there was no rush to tweet what we saw every minute. Less efficient? Maybe, but we didn't miss a thing, we enjoyed the moment.

That quality I'm talking about is inherent in design. Take your time; remove all the clutter, put some music on, and get to it. Before you judge me as a minimal hipster wobbling in my Eames chair, I'm talking design – not inspiration gathering. Because then you should be out in the city, taking pictures with one hand, listening to music, kicking a Hacky Sack to the kid in the street while using your other hand to throw a couple of coins into the busker's bag.

Every once in a while let your curiosity take over, without any shame or reason to feel stupid afterwards. I remember one of my walks resulted in following a Fluo thread street after street, corner after corner. Thinking I found something special, I ended up at the same point I started my journey. Those things happen, and with design it's the same. You've been brainstorming for hours and think you've found it, only to realise you're back where you started. But hey, new things will come along. Just '...keep, keep marchin" as Raphael Saadig once sang.

Design for the target group. Think about the project and put yourself in the shoes of the user/visitor/contributor or whatever role is needed. Just make sure that your fantasy is the one you need to get the job done.

Take a pencil and a piece of paper. You don't need to be Dali to draw, just put down your ideas in some quick sketches. I'm not old-fashioned either, so technology jumps in at this point. Roughly design your ideas in the application you feel comfortable working with. Present it to your colleagues and creative friends by telling

them it's a draft. They will understand - your client won't. Great ideas come along, but now the most difficult phase comes in.

It has something to do with discipline and perfection. Name your layers, make it pixel-perfect, keep in mind the carrier and flexible content (you're not designing for print here). Learn to reuse objects, don't copy and paste them several times. Be lazy but do it well, so your laziness doesn't result in doing a poor job.

In every phase you should focus on the right part. Once the idea has been approved and everything is designed, perform a final check and make it perfect. Is there blurry text? Do you need a 23 or 24px margin? It all matters.

As a member of the Awwwards jury, more often than not I see good projects passing me by, but the great ones whose designers have thought about every detail – those have my full attention. An eye for detail makes it better for the end user. Never forget that design and usability go hand in hand. You'll be amazed what the right font, spacing, or use of colour will do.

Stand out and create something unique every time, no matter if the client is big or small. Make them happy, and let your team be proud of what they do. Don't leave the client in the dark; keep them on track. Take them along on the journey but only show them the great views, not the ghetto clutter you've created in your brainstorm sessions. Defend the design you created, don't just nod at all the feedback. Rather, take it into consideration and let it bring you new ideas, not destroy yours.

Everything is possible. There are no limitations to creativity, and even more: front-end guys will be pleased with the challenge you present them. The team will be proud of their work and your work. Projects you dreamed of will fly in, but don't take that for granted - you'll be chosen for being not just good but being the one that strives for perfection!

Though remember, we're human. Everyone makes mistakes. But hey, we can correct them. So if it's good, just make it perfect.

Every once in a while let your curiosity take over, without any shame or reason to feel stupid afterwards

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Secrets of

Richard is the lead Symfony developer at Sensio Labs UK and one of three Symfony Gurus in the world. He was accepted on to the Symfony Exam council to help shape and grow the syllabus. He is also a dependency injection enthusiast and community builder.



Richard Miller

Is it time to realize the potential of the PHP framework Symfony2?

ymfony2. Never heard of it? Well now is the time to a closer look at this PHP web development framework and get ahead of the rest. Joining the Symfony2 revolution is just the beginning. Getting yourself certified will immediately make you a member of a very exclusive club. If you joined today you'd be one of three. It doesn't get much more exclusive than that. But Symfony2 is not about exclusivity, it's about community - and the more members that join the small band of certified developers the better.

Now that you have been tempted with a little prelude, lets get to the crux of the matter. What is Symfony2 and why should you care?

Symfony2 is a PHP web development framework, a philosophy and community - all working together in harmony. It is the development of the original Symfony framework, but harder, better, faster and stronger.

For me, the most exciting thing about Symfony is that as well as offering a full stack framework, it is also a collection of standalone components that can be used on their own outside the framework. The framework is, in a sense, a pick 'n' mix of components that can be used as part of smaller projects, introducing them as a way of refactoring legacy code, and can even be incorporated as part of other frameworks. Symfony components are already being used in libraries such as Doctrine 2 (an Object Relational Mapper for database abstraction) and Guzzle (a PHP HTTP client) as well as phpBB4, the PPI Framework, and eZ publish.

To demonstrate its growth, Drupal developers are also incorporating Symfony2 components into Drupal 8, a step that has the web community debating what Symfony2 can bring to the table. Drupal developers have always prided themselves on innovation and are constantly looking for new ways to improve their model. Developers who have previously shied away from using Drupal will be encouraged by the inclusion of Symfony components to further push innovation and improve code quality. Nevertheless, Drupal is growing fast, and with demand for it ever increasing, adopting Symfony's many reusable components has enabled them to enhance their own strong architecture with another.

Symfony2 can be seen as a beautiful new creation of all the best parts of existing frameworks. It draws on experiences from the first version of Symfony and other PHP frameworks, but also looks outside of PHP to draw inspiration from the best practices, libraries and frameworks of other languages - Java, Python, etc. Symfony2 focuses on best practices and writing clean, readable and testable (and well tested) code. The use of dependency injection along with the service container and event dispatcher make for flexible code which you can build on to ensure your application has high standards of code quality.

Open source enthusiasts will be pleased to know that Symfony2 favours configuration over convention so it can be reconfigured to suit the needs of your project. This means you are not fighting against the framework when you need to do something beyond typical web needs. However, don't worry that you will need to configure everything as the default configurations are perfectly fine in many cases. And, in the interests of freedom and happiness in the open source community, Symfony2 is not in competition with any other frameworks as it can be incorporated into any other framework to develop and enhance it.

Like many other open source projects around the world, Symfony2 already has a strong community behind it providing all the support budding Symfony developers need to get involved. The community is constantly developing new features and are willing to offer support and advice whether it is via Twitter, mailing lists and forums, or meet-ups and conferences.

If you now think that with all its wonderful features and notions of freedom it is a darned shame that there are only two certified developers out there, fret no more. In September, developers in the UK had their first chance to sit the exam to be certified in the framework - it's easy to join the Symfony2 revolution. The first exam took place at the Symfony Live conference, open to all Symfony enthusiasts around the country, but that was just the starting point of the development of Symfony2 becoming the go-to framework for PHP developers. See live.symfony.com for upcoming events.

Symfony2 is a PHP framework, a philosophy and community 🌕



18





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Lambooja Digital Agency

www.lambooja.com.br

Development technologies Adobe Photoshop, HTML5, CSS3, ¡Query





Designer Lambooja Digital Agency

www.lambooja.com.br

With a strong sense of style, this site shouts about Lambooja's abilities to translate its clients' briefs into impressive online destinations



who developed the

language it is you speak.

the design of the site: "We work with that can clearly and efficiently see what digital marketing, but we present it this agency can do for them. through a vintage approach, making analogies and using the language of the sports universe such as soccer, volleyball, tennis, basketball, baseball and other team sports. Although each of these universes has its quirks, the

dopting the now familiar way to achieve success is virtually the one-page scroll format, same: a focus on results, planning, this site showcases the adaptability, agility and teamwork are multifaceted talents of the principles needed to win in sports, designers Andre Alves which we parallel within our design."

The concept of vintage sport invokes information architecture a level of nostalgia, but is also universal, and design, and Victor allowing the design to speak to any Abadio, responsible for nationality. Social media is front and programming. Using a centre with this site design, as the social sporting motif, links space is a key channel for this design allow easy access into the site that can agency. Compressing the essence of be understood no matter what this agency's talents into a short scrolling site is a masterstroke and is Lambooja outlined its approach to certainly appreciated by their clients

> Well-thought-out layouts work in conjunction with a colour pallet and page elements to create a professional looking site that doesn't need reams of text or an image overload to communicate the skills on offer.

The concept of vintage sport invokes a level of nostalgia, but is also universal 🐙



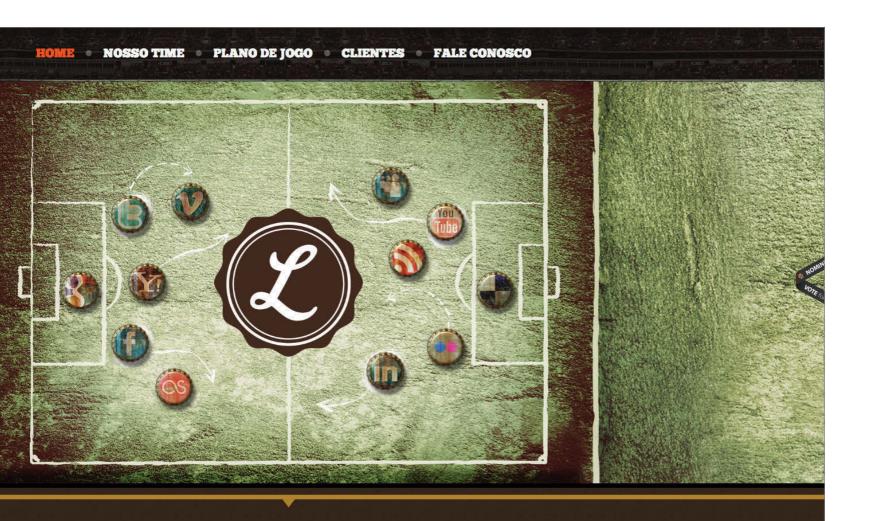
 Social media is clearly vital for Lambooia, as it places the links to these spaces directly on its site's homepage

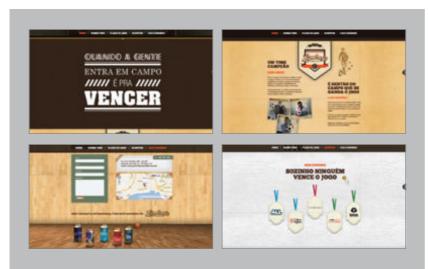
Each page of the site's design promotes the developer's desire to achieve simplicity and light interactivity throughout



20







<Top left, clockwise>

- Each page of the short scrolling website can be jumped to from this page. The designers make navigation fast and efficient
- The vintage sports theme is evoked on this page. The uncluttered layout is appealing to the eye
- Current clients are showcased again using the sporting motif that runs throughout the site
- The last page of the Lambooja site reinforces the vintage sports concept with intuitive use of graphics and an extremely well-chosen colour pallet



abcABC 123456

• ChunkFive is an ultra-bold slab serif typeface developed by The League of Moveable Type, and is available from Font Squirrel

<Below>

 Helvetica is a classic font originally designed by the Swiss typographer Max Miedinger in 1957, and is available from Linotype

abcABC 1234567890

21 lightbox



Color Exposure range from Diesel

www.diesel.com/colorexposure

Development technologies Adobe Photoshop, Adobe Illustrator, CSS3. JavaScript, ¡Query



Designer **Ultranoir** www.ultranoir.com

The new Color Exposure collection from Diesel is presented via an original and fun site



present this collection in an original awareness, as well as communicating way. It was also important to let the user the values of the new Diesel Color be free to move and to discover things Exposure range. at their own pace, in a funny way. For the process, we started to think about is critical. Ultranoir have taken a strong the concept by conceiving the UX with brand image and laid over this a user sketches and a storyboard.

"The main challenge of this website was to create an original user journey future customers.

s the collection title with quick access to the products. So suggests, this site uses we rapidly did some graphical colour to present the researches to illustrate the UX and new range of jeans from create a strong visual impact according Diesel in a fresh and to Diesel brand. Then we used Flash to uncluttered page design. quickly prototype this step."

Ultranoir showcase each Clearly it is the navigational elements style in the collection that standout with this design. Colour interactive can be selected, but so too can the components that give level of zoom, which is placed in full the viewer a chance to control of the site's viewer. Each explore each product before buying. component fits together beautifully to Ultranoir explains: "We tried to create a mood, aesthetic, and brand

> The visual aspect of this site's design interface that is intuitive, smooth and ultimately speaks to Diesel's new and

The main challenge of this website was to create an original user journey with quick access to the products

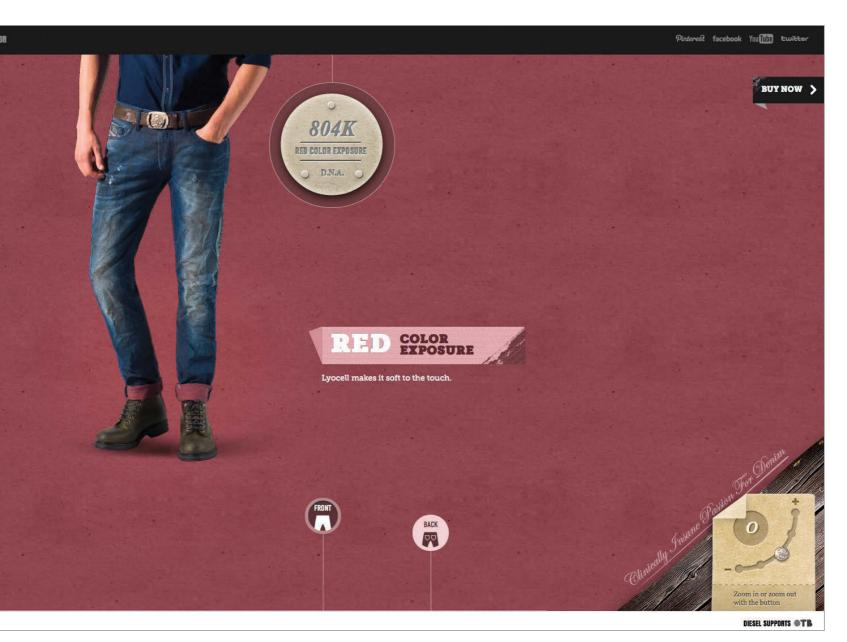




 The level of zoom that has been included on the site is astonishing, and reveals high levels of detail to potential buyers

22







abcABC 12345678 abcABC 1234567890

<Above, Top

The main font on the site is Museo Slab in 500, 700 and 900 weights. Designed by Jos Buivenga, the typeface can be bought from MyFonts

<Above, bottom>

For interactions DIN Condensed Black is used. Developed by Albert-Jan Pool, the font can be bought from the Font Shop

<Above>

 Colour is used throughout the site design to convey the brand values of Diesel's new range

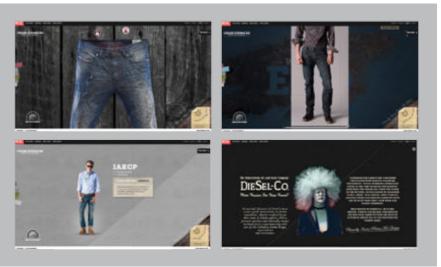
<Top left, clockwise>

• Visitors to the site can take a closer look at each pair of jeans via an intuitive zoom feature.

 To reinforce the brand, the developers have included high quality video of each product that gives customers a real world experience of each jean

 The site also contains information about how the jeans in the new Color Exposure range were created

 General information about each jean in the range is just a click away using the innovative zoom widget



lightbox 23





Above>
• The sequel to the wildly successful *The Songs of Dreams*, the new House of Anubis game is a tour de force of gameplay

<Above>













• Gameplay is created on the 2D and 3D plane to create a rich environment for the characters to inhabit. It adds a wonderful depth of view for the player

Each room has been designed to be as textured as possible. The graphics make the most of the custom-built 3D engine



 Sound, graphics, gameplay and storyline all come together brilliantly to give players of the previous game a whole new world to experience and explore

24

lightbox







 Players can easily keep track of their progress through the game, as well as save each session

• Dandelion In The Spring is the main font in use. Created by Brittney Murphy, it is available from Dafont.com

<Below bottom>

 Adelle Basic is a slab serif typeface, designed by Veronika Burian and José Scaglione. It can be

abcABC 1234567890

abcABC 1234567890

House of Anubis: The Song of Dreams

www.previews.nl/anubisusa/seO2

Development technologies Adobe Photoshop, Adobe Illustrator, Adobe Flash, Maya, Logic, Ableton Live



Designer **Media Monks**

www.mediamonks.com

The latest site from Media Monks pushes the boundaries of online gaming to create a consolelevel experience



ot content with their first 3D and go, but few are remembered.

Using complex gameplay that the molehill API." includes action on the 2D and 3D the developer's technical and

creative prowess. For the in-game characters, the developers used animated vector assets drawn in Illustrator, over a 3D animated reference dummy created for the last game.

"The creation of every room went from a gameplay minded layout, to being tiled and

textured, to being decorated with objects and adventure game that was played assets, getting lighting effects and enemy over 4 million times last year, paths etc," described Media Monks. "There's a Media Monks wanted to push the lot of love and hard work in every room. Keep in boundaries for this new mind that this is a custom-built 3D engine within incarnation. Online games come Flash and could be played without any additional plug-ins, and it doesn't make use of

As the game play progresses the player feels plane, this site is a showcase for completely immersed in the world that the TV show has created. The lush graphics coupled with smooth 3D gameplay is completely engaging without putting a strain on the technology, which could have ruined the experience for visitors. Overall the new House of Anubis game is a triumph of creativity and technical skill.

Using complex gameplay that includes action on the 2D and 3D plane, this site is a showcase for the developer's technical and creative prowess

25

<design diary> Tinké

SISIN CIAIV Ride the development cycle

Project | Tinké

Web | zensorium.com/tinke/index.html

Company | Kilo

Web kilo.sg

Backeround

Kilo takes up the challenge to launch local product developer Zensorium and its Tinké device into the global marketplace

> Kilo is a small Singapore-based digital agency that prides itself on creating rich media content for its clients. It is a young, inventive agency, and this is part of the reason that local product developer Zensorium was attracted to it

Zensorium were keen for Kilo to take their mobile health product, Tinké, and present it in a fashion that would impress web designers and entice potential customers to purchase.

Creative director Benjy Choo: "It's not everyday that we get a chance to work on a newly developed product from Singapore. Being a small island, we would more likely be briefed on projects for service providers than new physical products. So when the folks from Zensorium approached us to design the site for Tinké, we jumped at the opportunity.

"The first version of their website was passable at best. It had a simple navigation system, but Zensorium sorely needed to clean up its online identity, and it had some really dodgy copywriting.

"Before we began doing anything, we had to sit them down and agree on the approach we were going to take for the product. Fortunately, the client was very receptive to the direction we were going to take.

"Once done, it was an iterative process of dialogue between the client, the servicing team, the designers and the technologists to conceptualise and develop the final site."



1 Concept

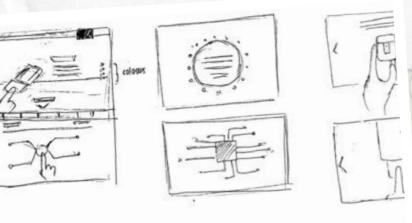
The inspiration for the site concept was based very much in the product. The tagline 'Tinké anywhere' provided the central theme, allowing users to follow the site wherever it went

Lisa Lee: "The idea for the site came from the fact that you can bring Tinké almost anywhere with you, as it is so compact. Someone on the team decided to come up with the line 'Tinké anywhere', and it has been the central theme for the entire website.

"We wanted the device to stay with the user on the site at least for the initial parallax plate. They can choose the colour and it'll follow their journey throughout. Initially, the client provided us with pages of research papers on the

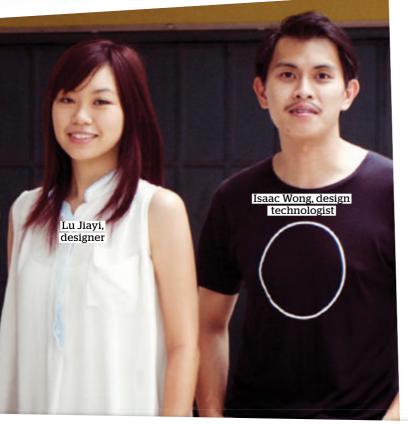
product properties, but we were fortunate as they were pretty much of the same wavelength, and took up our recommendations regarding the bite-sized nuggets of information and culling of large chunks of unrelated content.

"One big problem that we faced was that the product was in development during the site design process, and we had to use substitutes for first few versions of the site. We relied on Photoshop comps and quick sketches to strip in the product on some pages."











With a product created locally but aimed at a global market, the site design needed to reflect a concept and style that matched its ambitions

Lu Jiayi: The design team handled the preparation of the visuals and animation. I think we went through about three to four versions of the website. These initial concepts had to portray a global feel for a product developed in Singapore, as it was taking on other devices in the US market.

"After confirmation of the design, the PSD files were cut up and assembled by the designers for the tech team to add animation and JavaScript components.

"On a separate track, the product dimensions were sent to the 3D modellers and they started modelling the product in 3D. Simple animation were added for the rotation and LED lights for the product.

"Bear in mind that all these were taking place while the product was still in its prototype phase and there was no physical object to base our modelling dimensions on. In the end, the 3D team did a fantastic job in replicating the model to its exact size."







<design diary>

Tinké

3 Build

The integration of a host of different application provided the first challenge. The second was to change Flash-based animations into HTML and the third to prepare iOS versions

Dominique Wong, Glenn Ko: "The biggest challenge faced when we first started was the many different applications that we needed to integrate, from the shopping cart system to the customer support module. To further compound that, we had to link all these to the iPhone app.

"We proposed two third-party eCommerce services for the site – $\mbox{\sc OpenCart}$ and Zendesk.

"Additionally, coming from a Flash-based background, coding the sliding and animation was quite a steep learning curve, having to translate the slides, fades and overlays to HTML.

"To compound the complexity, we had to prepare iOS versions of the website as well. Bespoke iPad and iPhone versions were developed concurrently with the main site. The mobile and tablet versions had to also keep in line with the 'Tinké anywhere' concept, albeit in a more limited manner."

The biggest challenge was the different applications we needed to integrate





CARDIORESPIRATORY MONITORING

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and Stood oxygen exturation give you an Indication of your conformational programs. Tread complex this influentiation into a score known on the Your Vita India.

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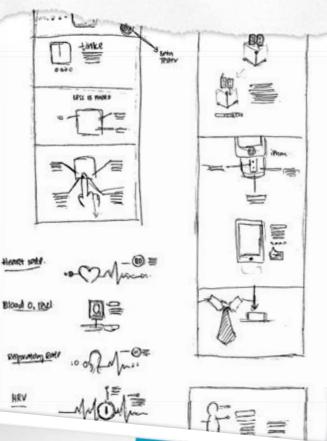
you will feel esthergic all the time and find it difficult be comprete dely activities.

O NO





<design diary> Tinké





platform. Share your data through the tinké network or other social media. Now, you can keep your family in the know, compare measurements with your friends, or let your doctor know how you're doing.

With the Tinké network, you can add friends and post comments on their scores. There is even a global comparisons feature, where you can see how you fair amongst the best and the fittest in the world. Prefer to keep your data private? Use Tinké privacy settings to keep everything private and confidential.



























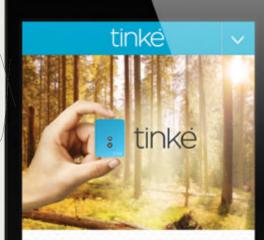
se of your body signals.

media

LET'S BEGIN



The theme of 'Tinké anywhere' is a recurring presence on the site, reinforcing the device's portability



The quick, revolutionary way to check your fitness and wellness is now at your fingertip.

Zensorium's breakthrough technology reveals how fit you are at any given time and over a time span.

The launch

Isaac Wong: "There was a big push in marketing on the ground to get more exposure for the product. This was largely led by the folks at Zensorium, and ended up generating quite a lot of buzz.

"We deliberately gave the site a more international appeal as we were marketing to the West, and moved its 'made in Singapore' origins to the descriptive text on the rest of the site. Being on some awards site helped heaps.

"Interestingly, this was one of the 'fun to do' projects that we decided to take on at Kilo which turned out pretty well. As a company, we guided a client who was just looking to sell a product online through a checklist of design, implementation, community, support and aftersales service. It also served as a website to champion products made in Singapore and has generated quite a lot of interest with local manufacturers."



pro file>

Progress through Technology

Global digital superstars Bartle Bogle Hegarty reveal how they created the celebrated Audi tagline, Vorsprung durch Technik, and sent Levi's into the stratosphere with its Marvin Gaye soundtracked Launderette campaign...

who BBH London what Global agency working with the biggest brands on the planet where 60 Kingly Street, London, W1B 5DS web www.bartleboglehegarty.com



artle Bogle Hegarty, founded in 1982 by British ad men John Bartle, Nigel Bogle and John Hegarty, is today recognised as one of the most famous creative advertising agencies on the planet. It has worked with many of the world's best-known brands, and has produced some of the most memorable campaigns ever

seen. Mention the name Flat Eric and memories of the cheeky little puppet will come flooding back. Perhaps even better-known is the iconic Levis 'Launderette' ad, another impressively memorable campaign. And, it

could be argued that neither of these hugely successful works are considered their most definitive work to date. The agency stills works today with its founding client, Audi, who still use the world famous 'Vorsprung durch Technik' tagline in its advertising campaigns. Alongside this well-known trio there are a host of household names including Diageo, Unilever, British Airways and Google. One of BBH's most recent campaigns was the 'Don't Fly' British Airways advert aired around the 2012 London Olympics. Success breeds more success and BBH has branched out from its humble beginnings to have offices in London, New York, Sao Paolo, Singapore, Shanghai, Mumbai and Los Angeles, and it currently employs over 1,000 staff worldwide and 400 in London alone.



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BBH timeline

Established 1982 Founders John Bartle, Nigel Bogle, John Hegarty



The famous Audi tagline Vorsprung durch Technik was unleashed



Barclays' 56 Sage Street taught money skills to young people through gaming. MySpace's Fan Video gave music fans the chance to appear in a video alongside their favourite artist.



Number of employees

Black Sheep was BBH's first ad for Levi's. The idea of zagging - going against the grain of the world



The Levi's Flat Eric ad was Launched via unbranded emails at a time when viral advertising was unheard of.





The ASOS *Urban Tour* campaign was a fully interactive, shoppable video.

The success of Bartle Bogle Hegarty is based in the belief of being creative, but also striving to make any of its clients' brands as famous as possible. To enforce the message and add to its continuing success, BBH recently won Agency of the Year at the coveted Webby Awards in honour of its digital work on campaigns for both Google and ASOS Menswear. If that wasn't enough, the London office is currently Agency of the Year as voted for by Campaign magazine, Creative Review magazine and the ARROWS (the British Television Advertising Awards).

Long before the awards were flooding in and the internet had a major bearing on creative and digital

agency working practices, life for BBH was relatively simple. The agency's big ideas were expressed exclusively through ads.

The agency's first ad was for the global giant Levi's and demonstrated the intrinsic power of advertising. Black Sheep portrayed a simple but effective message, with a black sheep going against a flock. It became the agency's icon, and according to BBH, 'Now it reminds us that when the world zigs, we zag'.

This was followed by the infamous 'Vorsprung Durch Technik' (progress through technology) line for an Audi ad. Decades later and the endurance of the tagline still sums up Audi's business philosophy.

But BBH is not an agency to rest on its laurels, and it is far from comfortable standing still. Just as well perhaps given the ever-evolving media landscape that surrounds them on a daily basis. To compete and keep up they have applied their passion for big ideas and craft skills to new media channels, and have evolved their skillset to rise to the challenges and opportunities of the digital world.

What makes an agency memorable? A body of enduring, elegant and imaginative campaigns. True, but a few simple words that make up a name can have just as big a bearing on the success of an agency. There are often complicated and amusing stories behind the naming of an agency, but the naming convention for BBH was incredibly simple – it is the surnames of its three founders

Beyond the agency moniker there are now a whole host of factors at work turning BBH into a powerful global presence. One such factor being the corporate

##BBH is not an agency to rest on its laurels, and it is far from comfortable standing still















Weetakid for Weetabix used Augmented reality on the back of a cereal box.



The Churned for Yeo Valley had a big TV spot and a Facebook karaoke competition.



The Three Little Pigs ad for The Guardian newspaper was one of the most talked about campaigns of the year.



2011

Champion of the Playground for Fruit Shoot was a skills game that bridged the on and offline worlds.



The Refuge Don't cover it up video used YouTube video star Lauren Luke to try to encourage people to speak out about domestic violence.



The British Airways Home Advantage campaign invited people to personalise the TV ad on Facebook using Google Street View technology.



website. Head of UX Adam Powers reveals how the agency site is a constant challenge, and BBH has a dedicated team to ensure that it reflects the agency's evolving nature. "The agency website is an eternal challenge – we recognise the importance of our face on the web. It's a showcase for our latest work, an archive, and a route into BBH for prospective clients, employees and interns. We try to keep it up-to-date and relevant, and the site must reflect our global activity as well as our UK output. There is a team of people tasked with that very job. That said, our site is a few years old, and so much has happened in the advancement of web technologies, UX and design possibilities we're looking at creating something new".

The BBH site is a key portal, but keeping BBH at the top if its game are its clients, without whom there is no success. Over the lifespan of BBH, the agency has enjoyed huge success, and that success has lead to an influx of possible clients clamouring to work with

##As well as campaign websites, BBH is designing native apps, digital platforms and products

them. While the direct approach is welcomed and appreciated, BBH is equally happy to go and pursue a brand with whom it would love to work.

Projects comes in all shapes and sizes, and an agency as successful as BBH has the power to choose who they work with. Powers explains that the agency is keen to do much, much more and are prepared to take on most projects, though eCommerce is an area it tends to avoid. "Although we have had some significant successes with our digital output, we are keen to do much more, both in terms of volume and in range. As well as campaign websites and online advertising, BBH is increasingly designing native apps,

digital platforms and products. Our extensive roster means we have clients with different digital needs, so we look to do the things that will have the biggest impact for them. We have the skills in-house to deliver pretty much any digital product, but we tend to steer clear of heavy lifting eCommerce sites. We aim to focus our creative vision on effectiveness and ensure that whatever we build supports and grows our clients' businesses."

Large-scale projects are very much part of the BBH landscape and bring together all the major departments in the quest for a common goal. Head of interactive production, Josh Tenser explains the



KEY PROJECT

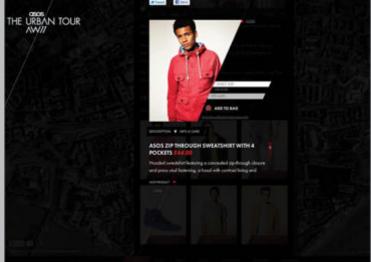
ASOS Urban Tour www.youtube.com/user/ASOSfashion

The challenge was to drive awareness of the ASOS brand among guys aged 18-25. Young men are less engaged with fashion than young women. Influenced by their peers, they seek inspiration from culture rather than catwalks.

In September last year BBH showcased the new ASOS collection by creating a totally interactive entertainment experience featuring incredible performances from street talent across the globe. A cutting edge shoppable video allowed BBH to sell the collection with seamless eCommerce functionality. A sleek, tech-style design was born with simple unfolding rollover animations to maximise the breadth of content without overwhelming the user.

Urban Tour had 7.36 million global views in just 11 weeks and was the third most popular campaign on YouTube in 2011 (UK). The campaign has been highly lauded, and this summer picked up a Webby award for Best use of video and a Gold at Cannes Lions.











A website is a medium for content on the web, which today can be reached by many devices

processes involved in a typical large-scales project. "Production for large scale projects would typically run over a six-month period. Within BBH the structure would run as follows: Exec producer, producer, creative technologist, UX designer, and designer. This production focused team would work alongside the traditional agency team of account director, account manager, strategist, and the creative team.

"A project would typically be divided into four phases - scoping, design, development, and testing. Scoping usually occupies the first 30 per cent of a project's life cycle and delivers UX documents, wireframes, statement of work, detailed budgets, schedule, tech spec and art direction.

"Design and development take up the bulk of the remaining time, and to a certain extent can run parallel and begin a short distance of each other.

"Testing and release brings the project to a conclusion. In the case of a large project, testing will be done in conjunction with a third-party specialist to ensure the most robust product possible is released."

Large scale projects require large-scale design and development, and a set of tools to match. Powers reveals the key components in the process. "Creative and design teams still start with good old-fashioned sketching, but once we get on screen it's Adobe Creative Suite that dominates. For early prototyping we will use Flash or Keynote, or simply design straight

flows and wireframing." As a global agency BBH has offices in London, but

it also has offices in New York, Shanghai, Sao Paulo, Singapore, Mumbai and Los Angeles. The global infrastructure present a stiff challenge, but the agency likes to think of itself as one agency in seven different places, producing local, regional and global work for some of the world's most illustrious brands.

into browser with sacrificial code. In addition the UX team will use Omnigraffle for the creation of user

Many BBH client relationships, such as Axe (known as Lynx in the UK), are global, and while the different offices run their own separate P&Ls, they frequently run complex programmes for clients in multiple territories. Here the effectiveness of the BBH network really comes to the fore. When the different offices work together they are able to deliver pretty much anything on time and to budget.

Web campaigns are powered by the latest technologies including the big three: HTML5, CSS3 and jQuery. Head of creative technology Alex Matthews reveals how the agency looks to implement the newest software. "We are always looking at the latest developments in technology for a creative technology angle to our advertising. In our industry you've always got to be careful of chasing the latest shiny object that comes along without thinking about whether it's actually useful or necessary - but this is not the case for HTML5, CSS3 and jQuery - these are tried and tested standards that have stood up to the challenges of changing device capabilities over the past couple of years. Where these technologies are particularly useful is creating highly creative and yet highly responsive web interfaces that work across all devices. There is still a way to go though, mainly in the way that these technologies are implemented in mobile devices, and also in allowing access to device hardware such as the file system, microphone and camera. We'll be watching the developments closely."

The major technologies provide the behind the scenes power, but an agency needs to be fully aware of the power of social media and the part it has to play. Powers explain how they are now a critical part of any campaign that BBH is involved in. "Social platforms are a critical part of any campaign, and increasingly of any digital product or service BBH creates for its clients. Our brands have touch points across so many platforms that it's critical we design with their ecosystems in mind - thinking as much about traffic drivers and the connective tissue between brand properties as we do for the touch points themselves. When considering brand ecosystems we are mindful of considering offline as well as online. Great use of



We would never prescribe a responsive design methodology for creating cross-device platforms. However, the advent of media queries and HTML5 has made mobile web interface development much easier, so we do often use this technique >>

Twitter, Facebook etc can amplify the impact of traditional TV advertising enormously. Additionally, we understand the importance of playing to the strengths of any particular service and having empathy for the context/behaviours of a user in it".

Devices and platforms dictate and shape how a web presence evolves. Matthews reveals how the agency likes to break the rules and would never prescribe a responsive design methodology. "We are always wary of setting rules. In fact we like to break rules, so we would never prescribe a responsive design methodology for creating cross-device platforms. However, the advent of media gueries and HTML5 has made mobile web interface development much easier, so we do often use this technique.

On every campaign we ask ourselves what the best way to engage our clients' customers would be. For example, there's no point creating a store finder app when a user could have just typed in the client's URL and had a time/location/device optimised experience straight off the bat. On the other hand, we couldn't create a mobile game using web-based technologies".

BBH has a vast network of employees spread across its global offices, with over 1,000 worldwide and 400 in London; and it is these employees that drive the agency forward. BBH believes that 'Great work starts with great people'. If you want to work at BBH it says you only need two things: be very good at what you do, and very nice with it. An ethos that they believe they live up to with pride.

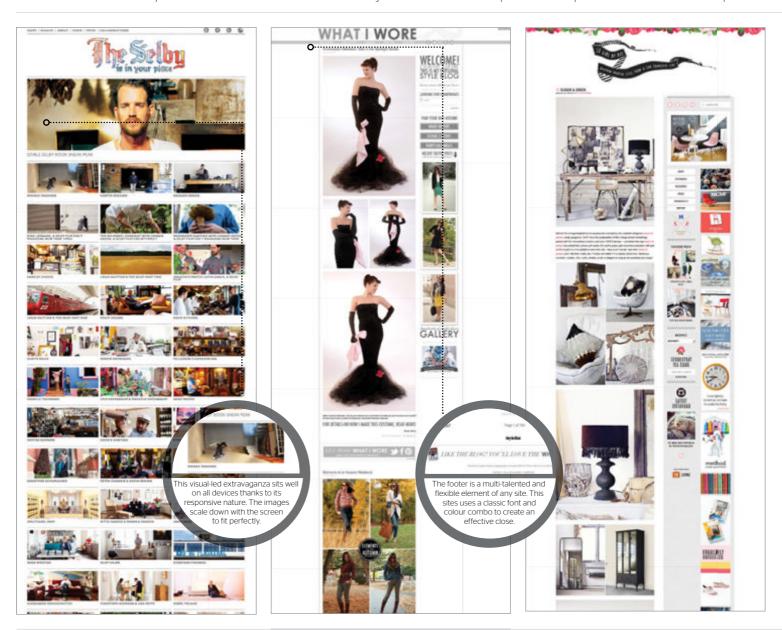


>Social media marketing



A sense of style

Fashion and style are emotive and subjective concepts. We picked six examples



The Selby

theselby.com

Development platform WordPress

The Selby is a visual extravaganza, being image-led from start to finish. The design is minimalist with a swathe of white creating the site canvas while the imagery creates the persona. To complement the crisp, clean photography a hand-drawn font is used for titles and text while a watercolour effect on the logo adds to the illusion to create a credible and stylish site.

What I Wore

whatiwore.tumblr.com

Development platform Tumblr

Black, white and shades of grey are a great combination when put together. This site uses them all in an effective manner that helps accentuate the core content. Neatly weighted text in the sidebar adds aesthetic interest as well as functionality. The primary focus in every post is the photos, which are neatly arranged in grids.

SF Girl By Bay

www.sfgirlbybay.com

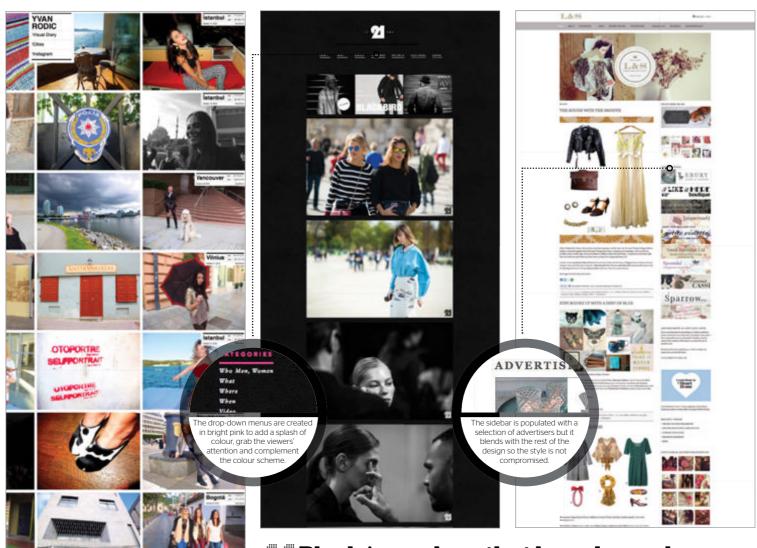
Development platform WordPress

This simple but effective blog boasts all the classic elements that define the blog genre. To take it to the next level it throws in a splash of colour, style and elegance. It is the simplicity that makes the site engaging and enthralling. A white background with black text is timeless, and the mixture of fonts, font-weight and colours ensure that it has an enduring quality.

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Get your site seen, or suggest a 140 with your blog's address directly to ② @WebDesignerMag a theme Email your suggestions to ② webdesigner@imagine-publishing.co.uk

of sites that we think ooze style and substance - and not just in their content.



Black is a colour that has always been associated with fashion and style

Yvan Rodic

yvanrodic.com

Development platform HTML/CSS/JavaScript

Text is very much a secondary feature on this blog. It uses a host of photos and images to tell its story. It is a visual diary that uses a responsive framework to ensure readers are always getting a glimpse of the latest and greatest content. A short title reveals the subject of a post and a link to view the complete series of shots – again, all text-free.

LE 21 EME

le-21eme.com

Development platform WordPress

Black is a colour that has always been associated with fashion and style - just think of the little black dress - and this site has chosen black as its canvas. By contrast, the logo is white and uses a contemporary font to reinforce a modern message. A selection of black and white and full colour images add mood and excitement in equal measures, as they stand out from the background.

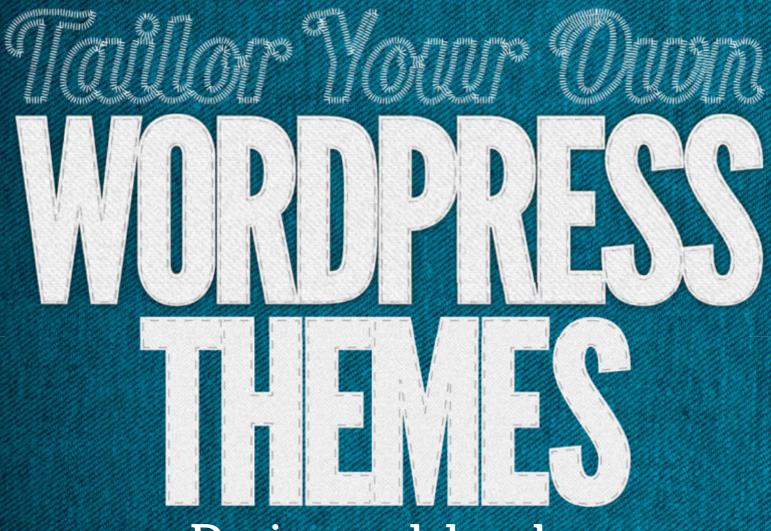
Lobster and Swan

blog.lobsterandswan.com

Development platform WordPress

Simple and stylish describe the essence of this site. There is nothing too clever that distracts the viewer, just a great combination of text, colour and photos. A featured image slider takes centre-stage, introducing the persona of the brand. The layout is standard two-column fare, but the use of complementary images and classic serif fonts adds to the ambience.

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Design and develop your own WordPress theme from scratch

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ordPress is the world's largest CMS. The platform has achieved to this position for a number of reasons, but a huge one is that it is really easy to build themes and plug-ins for WordPress. Anyone with knowledge of HTML and CSS, as well as some notion of PHP, will be able to get a simple WordPress theme together. In this article we'll do just that - build a WordPress theme from scratch. You can use this theme as the basis for your continued WordPress experiments, as a basis for future projects, or just as an inspiration. First, we'll discuss the tools at hand. In the case of WordPress themes, that means HTML, CSS, and PHP, as well as plain old image files. The PHP part in this mix is actually functions supplied from WordPress - you don't need to be fluent in PHP to create a WordPress theme. The template tags available may be PHP that does various things, and the way you pass parameters to the template tags is very much like PHP, but no true PHP knowledge is needed. That said, if you know the basics this'll be a lot easier.

Second, after we've talked about template tags, we'll establish what we're building. The theme we'll build will be a simple one, with minimal markup and CSS so we can focus on the WordPress parts rather than small details.

Finally, we'll go through the motions of putting the theme together, one file at a time. In the end, you'll have a fully-functional theme to continue working on. Let's get started!



THEME STRUCTURE

WordPress themes consist of template files, as well as the necessary stylesheets, images, and similar things that make up a website. The theme doesn't contain any content (but could have a language file for internationalisation), that sits in the WordPress database, nor any images, videos and so on that are part of the content. Basically, the theme is the design of your WordPress site, and through it you can control how your content is presented.

Themes belong in wp-content/themes/, in their own folder. This folder must contain a style.css, which has a theme header that has the necessary information WordPress needs to identify this as a theme, and an index.php. Usually there are more files than that. These are the ones we'll have in our theme:

- * style.css theme declaration and CSS
- * index.php main fallback template
- * header.php the site header
- * footer.php the site footer
- * sidebar.php the side column
- * single.php for single posts
- * page.php for single pages
- * archive.php for various types of archives
- * content.php code for outputting content
- * content-single.php code for outputting content on single posts
- * content-page.php code that can be used for outputting content on pages
- * nav-bottom.php code for including navigational elements in your theme
- * comments.php the comment code
- * functions.php code that can be used for registering features and functions
- * screenshot.png for admin purposes

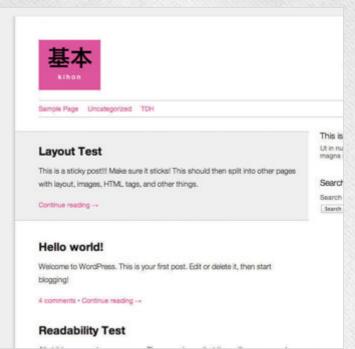
It is important to remember that while this is a common setup for themes in terms of template files, some themes won't have all these files, and some will have a lot more. In fact, most will be a ton of files, with everything from images and additional stylesheets, to JavaScript libraries and template files for every possible view in WordPress.

TEMPLATE TAGS AND CODE

Most of the theme template files consist of traditional HTML markup, with CSS classes and IDs, as well as some PHP code. The PHP code can obviously be just about anything, but for our purposes we'll just stick with the WordPress parts. This, by the way, is usually a pretty good idea. Unless you have a really good reason you shouldn't try and do what WordPress already has functions for with PHP. Stick to the WordPress way and you're less likely to run into weird issues down the road.

As noted previously, you really don't need to be all that familiar with PHP to create your first theme. That is because WordPress has something called template





Above: When we're done, your theme will even work with the new customisation options for themes

tags. Template tags are basically wrappers containing PHP code that will do things for you. For example, outputting the site title in plain text, or giving you a list of tags for a post. Besides being really convenient when building themes, this method also means that you don't really have to understand the underlying PHP that spits out that linked list of tags for a post; all you need to know is which template tag to use, and how to send the proper parameters to it so that it returns what you want.

Some template tags won't take parameters. That means that they just work as is, while others can take parameters. The ones that do take parameters are obviously of the sort that you would want to alter their output. Let's take a look at two different template tags. First, here's bloginfo(), which can be used to output the site URL, site title, and so on. Let's say we want the site title:

001 <?php bloginfo('title'); ?>

That's it. Wherever we put that, WordPress will output the site title (which you can change in the WordPress admin interface, under Settings>General). The stuff within the parenthesis, the 'title' part, is the parameter - a single one here.

Some template tags will take multiple parameters. Let's take a look at the template tag for outputting the tags for a post:

002 <?php the_tags(); ?>

This code will output a list of linked tags belonging to the post in question. The list will be comma

-WHAT ABOUT CHILD THEMES? -

Child themes are themes that borrow from their parent theme. Any theme can be a parent theme, and the child theme will then inherit everything from the chosen parent theme. That means that the child theme will get every bit of CSS, all the code; everything, really. The good part is this: everything that you put inside the child theme will take precedence over its counterpart in the parent theme. Want a different template for pages? Just include a page.php template file in your child theme and WordPress will use that one instead of the one in the parent theme.

Child themes have their own folders in wp-content/themes/ just like all other themes. The only thing that sets them apart is that the themes themselves are incomplete (if they're not then they really shouldn't be child themes) because they borrow from their parent theme. The style.css file in the child theme will dictate which theme is the parent theme. This is a very handy tool for modifying existing themes without having to fork them, and thus you can continue to update the parent theme without risking loosing any of your alterations.

When you've got your head around WordPress theming, you should definitely learn more about child themes. I recommend the WordPress Codex page on child themes codex. wordpress.org/Child_Themes, as well as the latest edition of my book Smashing WordPress: Beyond the Blog for an in-depth look.

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ABOUT THE MARKUP

As you no doubt have seen, the markup for this theme is HTML5. That means that this theme won't perform well on older web browsers, which in effect means anything below Internet Explorer 9. If you want to add support for these, additional stylesheets for IE would be needed. We will be including a simple JavaScript that takes care of some of the HTML 5 issues in IE versions prior to 9, but chances are that won't be enough. I'm afraid you're on your own there, for now, as this tutorial

focuses on the WordPress parts and not making code work in inferior and outdated web browsers.

If you really, really want this theme with support for Internet Explorer version 7 and 8, ping @tdh on Twitter and I'll release an updated version on the theme homepage: tdh.me/wordpress/kihon.

If you ask really nicely, I might even add support for Post Formats and make the whole thing responsive for you. But then, you'd better be really, really nice...!

THEME FRAMEWORKS AND Separa STARTER THEMES

It is popular to call themes that are meant for you to build upon 'theme frameworks'. In most cases however, this is a slightly misleading nomenclature, because although some themes are more suitable to build upon than others, all themes are in fact possible to use as a basis for a theme. I'd venture so far as to call most theme frameworks starter themes instead, as it is closer to the truth.

Starter themes are themes that are suitable for you to start your project on, which means that you could either just fork them or create a child theme for the theme of your choice. Below is a list of nice starter themes for you to consider should you not want to build your theme base yourself.

- S starter theme: underscores.me
- * Roots: www.rootstheme.com
- * Bones: themble.com/bones
- * Thematic: wordpress.org/extend/themes/
- * Hybrid Core: themehybrid.com/hybrid-core
- * Starkers: viewportindustries.com/products/ starkers



separated, and the text "Tags: " will be in front of the list. That's the default values of the three parameters this template tag can take, so while we didn't add any, what it really says is this:

The first parameter is what goes before the linked tag list, the second is how the tags are separated (comma and a space above), the third is what goes after the list (which is nothing). Or:

004 <?php the_tags(\$before, \$sep, \$after); ?>

Let's say we wanted the tag list to say 'Topics: ' in front, be separated by bullets, and have a link after:

005 <?php the_tags('Topics: ', ' • ', '
• View all'); ?>

• is the proper code for a bullet. It also sits before the link in the \$after parameter since the \$sep only separates tags in the list, not what comes before it or after it.

Not too complicated, right? The WordPress Codex has a list of all available template tags, along with pages with examples: codex.wordpress.org/
Template_Tags.

THIS IS WHAT WE'RE BUILDING

Enough theory, let's take a look at what kind of theme we're building here. While you could just start writing code, I believe you'll get a better result if you think things through first. The preparations you feel you need to be doing all depend on your workflow.

Personally, I tend to do this:

1. I come up with some sort of idea of what I'm doing. This could be anything from a colour palette I want to use, to a specific type of site that I want to build.

2. I draw some boxes on a paper. You might draw proper wireframes, use your iPad, or draw the design in Photoshop. I rarely bother with exact grids here, but chances are it sits in the back of my head.

3. I mock up as much of the design that I feel I want and need for the project.

4. I start writing HTML and CSS. In some cases I'll do an HTML version first, and then convert that to a WordPress theme, but most of the time I will just set up the CSS file (style.css) in this step and move along. After all, I've done tons of themes by now.
5. I start writing the code for my theme.

The theme we're building will be very simple. The purpose of this article isn't to teach you how to write fancy stuff in CSS and HTML, nor do annoying jQuery transitions. It's to show how easy it is to create a WordPress theme – we'll stick to a basic design.

First there's the header - the top of the site with a site title (or logo) and a simple horizontal menu. The left column is the content column, and then we'll have a side column to the right. Finally, we'll wrap everything up with a footer.

Now, WordPress has some useful features, such as widgets and menus. We'll put both of them to good use, with the horizontal menu in the header, and the right column will consist solely of a widget area. We'll also enable custom background colours and support a header image as a logo.

The markup will be simple. This is the basic layout markup, which will then consist of actual content:

001	<div id="outer-wrap"></div>
002	<div id="inner-wrap"></div>
003	
004	<pre><header id="header-container"></header></pre>
005	Site Logo
006	<pre><nav id="header-navigation"></nav></pre>
007	
008	
009	<pre><section id="content-container"></section></pre>
010	Main Content
011	
012	
013	<aside id="sidebar-container"></aside>
014	Right Column
015	
016	
017	<footer id="footer-container"></footer>
018	Footer
019	
020	
021	#inner-wrap
022	#outer-wrap

This is easily translated to the following, when applied to the sketch I've made:

- A. #header-container
- B. #header-navigation (within #header-container)
- C. #content-container
- D. #sidebar-container
- E. #footer-container

Let's get building!

feature 41

I usually start by creating the theme declaration in style.css, but since I just leave that sitting there while building the rest of the primary theme structure within the template files, we'll leave that for last. It makes sense to start with header.php - it is the file that consists of the site header after all. It is also the file with all the necessary declarations and includes in the head area, which makes it pretty important. Let's go through creating this file in chunks, step by step.

on Getting the meta right

We'll start from the top, with the HTML declaration and the necessary meta. This is pretty basic stuff so let's breeze on through so we can get to the meaty stuff. The only WordPress-y thing about it is that we're using bloginfo() for obtaining the site description and name.

```
001 <!DOCTYPE html>
002 <html <?php language_attributes(); ?>>
003
004 <head>
005
      <meta charset="utf-8">
      <meta name="description" content="<?php</pre>
bloginfo( 'description' ); ?>" />
007
      <meta name="author" content="<?php</pre>
bloginfo('name'); ?>">
     <meta name="viewport" content="initial-</pre>
scale = 1,user-scalable=no,maximum-
scale=1.0">
009
      <meta name="HandheldFriendly"</pre>
content="true"/>
```

The title tag

Since this header file will be used on every location on the site, the title tag should reflect that. Twenty Eleven has an excellent solution for showing the right things in the title tag, which would be the post or page title should you be on a post or page, or the site description if you're on the front page. The site title is going to be there all the time, obviously.

```
001 <title>
002 <?php
003 // Based on Twenty Eleven
004 global $page, $paged;
005
006 wp_title( '|', true, 'right' );
007
008 // Add the blog name.
009 bloginfo( 'name' );
010
011 // Add the blog description for the home/
front page.</pre>
```

CREATING THE HEADER

```
012 $site_description = get_bloginfo(
  'description', 'display');
013 if ( $site_description && ( is_home() ||
  is_front_page() ) )
014   echo " | $site_description";
015
016 // Add a page number if necessary:
017 if ( $paged >= 2 || $page >= 2 )
018   echo ' | ' . sprintf( 'Page %s', max(
  $paged, $page ) );
019 ?>
020 </title>
```

03 The stylesheet

We need to include our stylesheet, which is style.css of course. While we're at it we'll also add support for pingback so that other blogs and sites realise they can ping us, and include the HTML5 supporting JavaScript for Internet Explorer versions prior to 9. Aside from the bloginfo() usage, this is pretty standard stuff.

001 <link rel="stylesheet" type="text/

```
css" media="all" href="<?php bloginfo(
'stylesheet_url' ); ?>" />
002 <link rel="pingback" href="<?php
bloginfo( 'pingback_url' ); ?>" />
003 <!--[if lt IE 9]>
004 <script src="http://html5shiv.googlecode.
com/svn/trunk/html5.js"></script>
005 <![endif]-->
```

Wrapping up the head

We're almost there with the head part. First, we want to make the comment-reply JavaScript available on single posts and pages. This is necessary for making threaded comments work. We also need to kick off WordPress with wp_head() as the last thing we do in head.

```
001 <?php
002
      // Queue threaded comment JavaScript
      if ( is_singular() && get_option(
003
 'thread_comments'))
004
         wp_enqueue_script( 'comment-reply'
005
006
      // Kick off WordPress
007
      wp_head();
008 ?>
009
010 </head>
```

The header title or image

First of all, this is where we start the body tag, which needs the body_class() template tag to

apply all necessary CSS to the body tag. Don't forget that one!

We want to make it possible to upload a header image, – a logo for example – but should there not be one we'll just output the site title and description as they appear in Settings>General. Now, this is a little tricky because we haven't actually registered support for headers yet – that is something we'll do in functions.php, so you're going to have to refer to this code again when we get to that. The code for this step can be found on the resource disc.





The menu, and wrapping things up

The last part of the header.php file is including the menu, which we'll also have to declare in functions. php. The theme_location parameter tells us which menu will be displayed here, which is important if you have more than one. In our case, it is the one called main-menu. We'll get to that in functions.php as well. Finally, we'll close the header tag and be done with header.php.

42_____feature

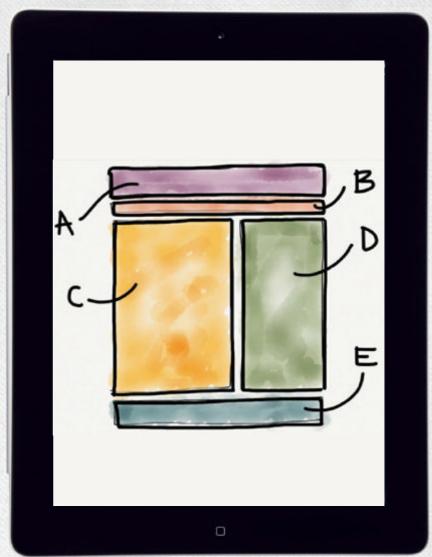


SIDEBAR

The sidebar.php template is really simple too. All we want it to contain is the necessary markup, so we need to position it where we want it, and the code for making the widget area will then appear. The actual registration of the widget area is done in functions.php, so in essence this is basically just a placeholder.

The code we're using for sidebar.php is the #sidebar-container aside tag, and within it we have a ul. That is because we'll construct our sidebar to be a unordered list, which is something you can choose to do when you create it in functions.php. This is the common way to do it, making each widget dropped into the widget area reside within a li, that belongs within the unordered list. However, some prefer divs or even a bunch of asides rather than the old method. Which way you go is up to you, but since widget areas tend to be lists of things, I think using lists makes sense.

Anyway, the template tag used to call up widget areas is called dynamic_sidebar() and all you have to do is to pass the name of the sidebar you want to display to it. In our case, that is primary-right-column, which also happens to be the only widget area we've got.



CREATING THE FOOTER

Let's move along with the footer. This template sometimes includes widget areas or other fancy stuff, but we're keeping it simple. The important part with footer.php is that you really should make sure you have wp_footer() just before you close the body tag. This tells WordPress that we're done with the page, and also gives developers a great opportunity to hook on to the bottom of the page for including or executing things, whatever it might be. Don't forget wp_footer() is the important thing you need to take away from this.

The actual footer

The footer for this theme is simple enough, it is just a line of text with some links in it. You'll remember home_url() from header.php perhaps, a template tag (that you need to echo to actually

output) which points to the root of your WordPress site. If you need to get the root of the WordPress installation, which often is the same as your site but not always, you could use site_url() instead

Wrapping up the footer

Finally, we'll close all the necessary tags, the #outer-wrap and #inner-wrap divs from header.php, and then we'll have wp_footer() just before closing the body tag as well. Like I said, we're going to keep this one really simple, so that's it!

feature 43

INDEX

We're getting close to a theme that will actually work now. The index.php template is the main fallback template for everything, so whenever there isn't a dedicated template file for something, this will be used. Let's dive right into it, shall we?

The top

The first thing we've got in this template, and just about any other template file that works with the actual content, is the inclusion of header. php with get_header().

```
001 <?php
002 // index.php is the fallback template
003
004 // Include header.php
005 get_header();
006 ?>
007
008 <section id="content-container">
```

02 404s

We don't have a 404.php template, so index.php will handle that. By checking if have_posts() lack any posts we can figure out if a non-existent page is being accessed. Should that be the case, we'll output a short message (that really should be a lot more helpful to the lost visitor) and fetch the search form with get_search_form(). You can have your own search form by creating a searchform.php template file with your form, or you can rely on the default one, which we're doing here for now.

```
001 <?php
002
     // 404 Page Not Found or empty
archives etc.
003 if ( !have_posts() ) : ?>
004 <article id="post-0" class="post error404
not-found">
005
      <h1 class="entry-title">Not Found</h1>
006
      <div class="entry-content">
007
        Sorry, there is nothing here. You
might want to try and search for whatever it
was you were looking for?
008
        <?php get_search_form(); ?>
     </div>
010 </article>
011 <?php
012 endif;
```

Cooping it

Content in WordPress is outputted using the loop. Here's the most basic one, starting with while (have_posts()): the_post(). You can create your own loops and do things different from this, but

this is the basic one. As long as there are posts to loop, up to the amount you've set in Settings>Reading, the loop will loop out the posts.

Now, you'll see two get_template_part() tags. The first is looking for content-index.php and the second wants nav-bottom.php. When using get_template_part(), the first parameter is the fallback, so should content-index.php not exist, it will revert to just content.php. The second parameter adds the index part in content-index.php. The same goes for nav-bottom.php - should it not exist, it will look for just nav.php. This is a very handy way of preparing a theme for dedicated template parts, but with fallbacks to make sure it actually works.

So, to recap: the loop is looping a number of posts, which will be dictated by the contents of content-index.php. This is something we'll look closer at in the next section.

```
001 // The basic loop
002 while ( have_posts() ) : the_post();
003
004 // Load the appropriate content template
005 get_template_part( 'content', 'index' );
006
007 // End the loop
008 endwhile;
009
010 // Navigation top
011 get_template_part( 'nav', 'bottom' );
012 ?>
```

Wrapping up index.php

To wrap up index.php, we'll close the section element. However, we also want to include the sidebar.php template, which contains our right column, which we'll do with get_sidebar(). Finally, we want to wrap up the whole page with footer. php, so we'll call that with get_footer().

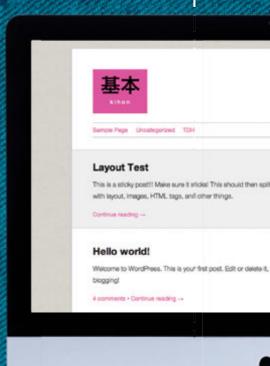
```
001 </section>
002
003 <?php
004 // Include sidebar.php
005 get_sidebar();
006
007 // Include header.php
008 get_footer();
009 ?>
```

A look at nav-bottom.php

Before we move along, let's have a quick look at the contents of nav-bottom.php. We called it in step 3, as I'm sure you remember. This code will only be interesting if the loop, here represented by calling \$wp_query, has more than

one page. So if the loop contains 15 results but you have set WordPress to only display ten per page, then you'll get these navigational links. Pretty simple, and a nice example of when get_template_part() is useful, since the code within nav-bottom. php is needed on just about any archive page.

```
001 <?php
002
       // When possible, display navigation
at the bottom
003
       if ( $wp_query->max_num_pages > 1 ) :
004
        <div id="nav-below"
class="navigation">
005
         <div class="nav-previous">
006
           <?php next_posts_link( '<span</pre>
class="meta-nav">←</span> Older posts'
); ?>
007
         </div>
008
         <div class="nav-next">
           <?php previous_posts_link( 'Newer</pre>
009
posts <span class="meta-nav">&rarr;</span>'
); ?>
         </div>
010
011
       </div>
012 <?php endif; ?>
```



44_____feature



CONTENT

archive listing. The is_singular() conditional tag tells

us this, because it will only return true if the page in

question is meant for only one piece of content.

We use the permalink() to get the link to the post

should we need it, the_title() to output the post title,

and the_title_attribute() to get a suitable title for the

By separating the content that you'll output from every template file, it'll be easier to reuse the code. In this theme, we use get_template_part() to fetch the appropriate content-X.php file, where X is the type of content we want. That means that single posts, controlled by the single.php template, will look for content-single.php, and pages will want content-page.php. Should they not exist, they'll revert to content.php. Much like index.php is the main fallback template file, content.php is the fallback file for all content. So, let's go ahead and take a look at that

Before we dive in, it is important to remember that content can either be in a list, or all by itself on a dedicated page (like a post, for example). Since content.php needs to be able to handle both, we take that into account.

The content header 01

We place all content in an article tag which has a post class() template tag within. This is to make sure that WordPress is able to apply the necessary styles.

Moving on, the title of the content sits in a header tag, which will either output an h1 or an h2, depending if this is a post or page, or some sort of 001 <article id="post-<?php the_ID(); ?>" <?php post_class(); ?>> 002 <?php if (is_singular()) { ?> 003 <header class="entry-header"> 004 <h1 class="entry-title"> 005 <?php the_title(); ?> 006 </h1> 007 <?php } else { ?> <h2 class="entry-title"> ดดጸ <a href="<?php the_permalink(); 009 ?>" title="<?php the_title_attribute(); ?>" rel="bookmark"> 010 <?php the_title(); ?>

<?php } ?> </header> 014

For archives

</h2>

011

012

013

title tag. Lots of titles there.

02 Next, we differentiate how we output the main content depending on wether it is an archive of some sort, or a single post. Here we have several conditional tags, like is_archive() and is_search() all pretty self explanatory. With the_excerpt(), we'll only get a 55 word excerpt from our posts, or whatever's been filled in to the excerpt field on the Edit Post screen in the admin interface.

ĕ	001	php</th			
a	002	// For archives and search results, use			
ă	the_	excerpt()			
ä	003	<pre>if (is_home() is_front_page() </pre>			
8	is_archive() is_search()) : ?>				
Ø	004	<pre><div class="entry-summary"></div></pre>			
8	005	<pre><?php the_excerpt(); ?></pre>			
ø	006	<div class="read-more"></div>			
Ø	007	php</th			
g	008	// If the comments are open			
8	we'l	l need the comments template			
ä	009	<pre>if (comments_open()) { ?></pre>			
8	010	<pre></pre>			
ĕ	011	<pre><?php comments_popup_link(</pre></pre>			
S	'Lea	ave a comment', '1 comment', '% comments'			
٤); ?	/>			
Ø	012	•			
Ø	013	, L. L. D			
H	014	<a <="" href="<?php the_permalink();</th></tr><tr><th>d</th><th>?>" th=""><th><pre>title="<?php the_title_attribute(); ?>"</pre></th>	<pre>title="<?php the_title_attribute(); ?>"</pre>		

į	rel=	"bookmark">
ğ	015	Continue reading →
	016	
í	017	
	018	

For single posts and pages

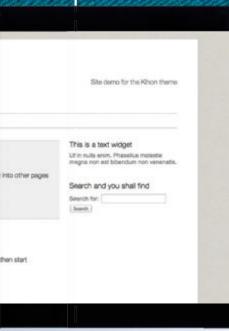
Everything that isn't an archive is obviously a single view of some sort. Here we use the_content() instead of the_excerpt() to fetch the content, which means we'll get all the main content. Sometimes that can be split up into several pages (although it is a nasty habit that should be avoided), so we have wp_link_pages() to manage that.

Marie Call	
001	php</td
002	// For everything else
003	else : ?>
004	<pre><div class="entry-content"></div></pre>
005	<pre><?php the_content(); ?></pre>
006	<pre><?php wp_link_pages(array(</pre></pre>
007	'before' => ' <div class="page-</td></tr><tr><td colspan=3>link">Pages:',</div>
008	'after' => ''
009)
010); ?>
011	
012	<pre><?php endif;</pre></pre>

Comments only on singulars

Finally, single posts and pages might have comments that we want to show off. The is singular() conditional tag will only output the comments template() if it returns true, so that way we can make sure that comments won't show up on any archives.

```
001
         // Comments only on single posts
002
         if ( is_singular() ) {
```



The theme with a custom header and background



STYLE

Every theme needs a style.css file, and it is important that the top of it is formatted in a way that WordPress can understand. This is where the theme information goes, the part that you'll see when visiting Appearance> Themes in the admin interface. Some themes have more information than others, the Tags: line is only for the wordpress.org themes repository, for example.

9

Below is the theme header in style.css for our theme. I've named it Kihon, which is Japanese and means 'foundation', as this is meant to be something of a foundation for curious web developers who want to step into WordPress theming. Kind of nice, don't you think?

The theme header is the only thing that is dictated by WordPress when it comes to style.css. Once you get below it you can happily CSS away in any which way you want. There are a bunch of classes that you should support though, for images and the like, so you might want to refer to this page and make sure your stylesheet is able to manage all situations:

codex.wordpress.org/CSS#WordPress_ Generated_Classes.

001 /*

002 Theme Name: Kihon

003 Theme URI: http://tdh.me/wordpress/kihon/

004 Author: Thord Daniel Hedengren

005 Author URI: http://tdh.me

006 Description: A simple theme meant as a foundation for your adventures in the WordPress world.

007 Version: 1.0

008 License: GNU General Public License v2 or later

009 License URI: http://www.gnu.org/
licenses/gpl-2.0.html

010 Tags: light, two-columns, rightsidebar, fixed-width, custom-background,
custom-header, custom-menu, sticky-post
*/

FUNCTIONS

The functions.php file is meant for activating features and adding additional functionality. It is a very powerful tool, and you can do almost anything with it. We'll only touch on it briefly here, because frankly it is a huge topic that deserves an article of its own.

Some things that we're doing here in the functions file connects to things we've done before, like the header image and menu in header.php, and the widget area in sidebar.php. You might want to refer to these sections.

Setting up the theme

The first thing we need to do is set up the theme, which is to say we create a function with features that we want the theme to have, and then we hook that to after_setup_theme with add action().

Within the function, kihon_setup(), you'll find the features we're adding. Here you'll find the header image, with a bunch of settings such as flexible width and height (but recommended sizes), as well as the menu, register_nav_menu(), which creates the menu we called in header.php. The custom background feature will let us be able to detect RSS feeds.

Creating the widget area

Next we have the widget area. This also sits within a function, called kihon_widgets_init(), and we hook it onto widgets_init with add_action(). Widget areas, or sidebars, are registered with register_sidebar(), which takes a number of things within an array. Name, ID, what goes before every widget and what comes after it, and so on. This is where you can see that widgets sits in litags, which we talked about previously.

```
001 // REGISTER SIDEBARS
```

002 function kihon_widgets_init() {

003

004 // Primary right column

005 register_sidebar(array(

006 'name' => 'Primary Right Column',

007 'id' => 'primary-right-column',

008 'description' => 'The primary right

column.',

009 'before_widget' => '',

010 'after_widget' => '',

011 'before_title' => '<h3

class="widget-title">',

012 'after_title' => '</h3>'

013));

014

015 }

016 add_action('widgets_init', 'kihon_
widgets_init');

03 Comment callback

Now we've got the comment callback part. This is trickier, and as we don't have room to delve into the comments.php template, we'll just breeze it. kihon_comment() is called by wp_list_comments() in comments.php to control how comments are displayed. Refer to comments.php in the theme and you'll see how it connects.

Finally, as we started with a <?php tag, we need to close it. And that's it for our functions.php file.

001 // COMMENT CALLBACK

002 function kihon_comment(\$comment, \$args, \$depth) {

003 \$GLOBALS['comment'] = \$comment; ?>

005 <div id="comment-<?php comment_

ID(); ?>" class="comment-body">

007 <?php echo get_avatar(\$comment,</pre>

\$size='32',\$default='<path_to_url>'); ?>

008 <?php printf(__

('<cite class="fn">%s</cite> <span

class="says">says:'), get_comment_

author_link()) ?>

010 <?php if (\$comment->comment_

approved == '0') : ?>

011 <?php _e('Your comment is

awaiting moderation.') ?>

012

013 <?php endif; ?>

014 015

<div class="comment-meta</pre>

commentmetadata"><a href="<?php echo

htmlspecialchars(get_comment_link(

\$comment->comment_ID)) ?>"><?php printf(_</pre>

('%1\$s at %2\$s'), get_comment_date(), get_

comment_time()) ?><?php edit_comment_</pre>

link(__('(Edit)'),' ','') ?></div>

016

017 <?php comment_text() ?>

018

<?php comment_reply_link(array_</pre>

merge(\$args, array('depth' => \$depth, 'max_

depth' => \$args['max_depth']))) ?>

021 </div>

022 </div>

023 <?php }

023 < 9

024

025 ?>



THE FINISHED THEME

That's it - Kihon is done!

No, wait, it isn't. Themes are almost never done, they are merely works in progress. This theme might be in working order right now, but it isn't done. When browsing through the theme files, you'll no doubt note that there are more files there than we went through here. Most notably, single.php and content-single.php, as well as page.php and its content-page.php, not to mention comments.php. By now you should have enough knowledge to be more than able to wade your way through these files and start making changes on your own.

There are features to be added to Kihon that we couldn't fit this time, such as featured images for posts, for example. The theme should also be responsive, so there's that to take into account, and don't you think you should have more flexible sidebars? Also, this theme would do well with support for at least some Post Format.

There are always things to do, as I'm sure you know as a web developer, but when it comes to WordPress it is ridiculously true. Just you wait - a future version of the platform will no doubt add additional features that you'll want to use with your own creations.

I urge you to dive into the Kihon code, learn what you can and take what you like for your own projects. I also recommend looking at the default themes that come with WordPress. They adhere to WordPress coding standards and are a great way to learn more.

FURTHER READING/TOOLS

Additional reading:

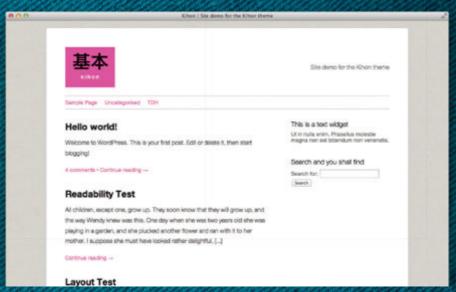
- Theme Development: codex.wordpress. org/Theme_Development.
- Thord's book, Smashing WordPress: Beyond the Blog: tdh.me/books/smashingwordpress-beyond-the-blog-3rd-edition.

Useful tools for theme development:

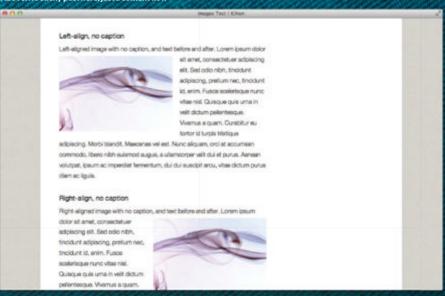
- Theme Unit Test XML file: codex.wordpress. org/Theme_Unit_Test.
- The Theme-Check plug-in: wordpress.org/ extend/plugins/theme-check.

WordPress for Beginners

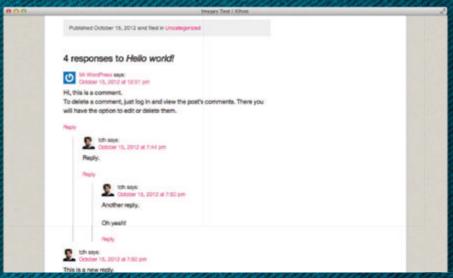
 There are lots more tools, tips and themes for you to get to grips with on offer in Imagine's WordPress for Beginners Bookazine.
 Whether you're preparing to roll out an eCommerce site, or simply want to sprinkle some extra widgets on your page, WordPress for Beginners will teach you everything you need to know. It's available now for £11.69 via www.imagineshop.co.uk.



Above: No sticky post here, just a content flow



Above: Testing image alignments



Above: A single post with some comments

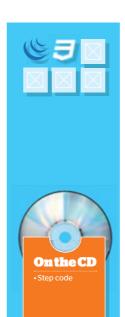
feature 47

<tutorials>

Build a news content switcher with jQuery & CSS3

Using the Top Headlines content switcher at **globalnews.ca** as inspiration, here's how to build your own with jQuery and CSS3

tools | tech | trends JavaScript, jQuery, CSS3 **expert** Louis Lazaris





here are hundreds of scripts and plug-ins online for content sliders using JavaScript. Most of those scripts are for image-heavy content that is geared to making a visual impression. This one is a little different. The idea for this tutorial comes from a content switcher that, at the time of writing, appears on the homepage for globalnews.ca (a

Canadian news network). In this tutorial, we will be recreating that widget.

This content switcher is text-heavy and is focused on displaying the latest top headlines for that day. It has a vertical list of headlines, along with a lava lamp-like effect where a white bar highlights the currently visible news story. In addition to allowing the user to click to view any headline, the highlight bar animates automatically, cycling through all the available items.

The version on **globalnews.ca** uses JavaScript for the white bar animation, and the widget isn't responsive. We'll improve on that by making ours responsive and use CSS3 transitions for the lava lamp effect.

If you'd like to fiddle with the full code for this widget online, you can view it at this JS Bin: jsbin.com/utaneq/48/edit, or use the files with this tutorial.







The headlines list

The first thing we'll do is establish some clean, semantic markup to hold the content that our script will manipulate. We'll start with a simple unordered list, with the last item being a special "highlight item" that we'll use to create the lava lamp effect. We'll also have a default "selected" list item, and we'll throw in a couple of phony news headlines.

001
002 100 red
bicycles stolen from local bike store

006 Truck inspections under way
for the metropolitan area

007 Are the beaches safe for swimming this year?

008
009

The news preview

The right-side of our widget will hold the individual news items. They'll each have an image, some text, and some CSS classes for styling and

scripting purposes. Our example will consist of six news items. Here's how each item will be marked up:

001 <div class="news-content topcontent">

004

Fixed box model

To ensure width calculations are more intuitive, we'll set the box-sizing property, along with some universal margin and padding resets (which will usually be done in a CSS reset, so you likely won't need this):

```
001 * {
002    margin: 0;
003    padding: 0;
004    -webkit-box-sizing: border-box;
005    -moz-box-sizing: border-box;
006    box-sizing: border-box;
007 }
```

Build a news content switcher with jQuery & CSS3

- New leash laws in effect for floppy-eared dogs
- Insider: Can palm trees be saved?
- Fresh recipes to titillate the taste buds
- Truck inspections under way for the metropolitan area
- · Are the beaches safe for swimming this year?

Are the beaches safe for swimming this year?

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.

- 100 red bicycles stolen from local bike store
- · New leash laws in effect for floppy-eared dogs
- Insider: Can palm trees be saved?
- · Fresh recipes to titillate the taste buds
- Truck inspections under way for the metropolitan area



New leash laws in effect for floppy-eared dogs

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis

<Clockwise from top left>

- The lava lamp effect is done using CSS3 transitions, keeping our JavaScript animation-free
- The red bullets on the headline items use pseudo-elements
- Using a negative margin and some z-index settings, we make the highlight bar appear to flow into the content section
- How our widget might look on a mobile device. Percentage widths in our CSS help us achieve this.
- 100 red bicycles stolen from
- New leash laws in effect to
- Insider: Can palm trees be
- Fresh recipes to titillate th
- Truck inspections under w
- Are the beaches safe for si

- 100 red bicycles stolen from local bike
- New leash laws in effect for floppyeared dogs
- Insider: Can palm trees be saved?
- Fresh recipes to titillate the taste buds
- Truck inspections under way for metropolitan area
- · Are the beaches safe for swimming this year?



Are the beaches safe for swimming this year?

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.

Adding a transition

To avoid using jQuery for the highlight bar animation, we'll add some CSS3 transitions to the headline list items. We also add some innocuous transforms to help the animation look smoother. The z-index value is important to help the white highlight bar (which has a lower z-index) appear below all the list items in the stack

```
001 .news-headlines li {
002
       padding: 5px 20px 5px 24px;
003
       margin-bottom: 15px;
       position: relative;
004
005
       z-index: 20;
006
       -webkit-transition: all .75s
ease-out;
007
       -moz-transition: all .75s ease-
out;
008
       -o-transition: all .75s ease-out;
009
       transition: all .75s ease-out;
010
       color: #336699;
       -webkit-transform: translateZ(0);
011
012
       -moz-transform: translateZ(0);
```

```
013
       -o-transform: translateZ(0);
014
       transform: translateZ(0);
015 }
```

Pseudo-element bullets

To create the list item bullets, we'll use pseudo-elements. This helps us avoid adding an unnecessary image. The pseudo-element is a small red box set to display: inline-block and margin settings help position it correctly. We also ensure that the cursor changes to a hand when the list item is hovered (since we're not using <a> elements).

```
001 .news-headlines li:before {
002 content: "";
003 display: inline-block;
004 width: 5px;
005 height: 5px;
006 background: red;
007 vertical-align: middle;
008 margin-left: -12px;
009 margin-right: 7px;
010 }
```

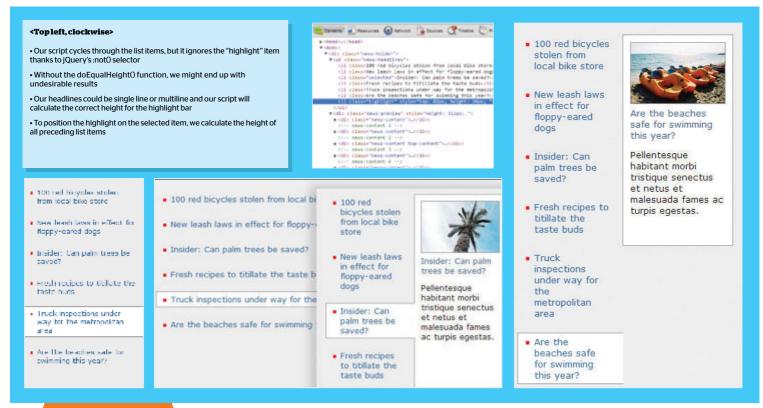
```
012 .news-headlines li:hover
013 {
014 cursor: pointer;
015 }
```

Stacked news items

On the right-side of the widget we'll display content associated with the selected news item. Each of these items will be absolutely positioned to help stack them so only one is visible at a time. A separate class will be used to bring the selected news item to the top of the stack with z-index:

```
001 .news-content {
002
       position: absolute;
003
       background: white;
994
       z-index: 10;
005
       padding: 10px;
006
       top: 0;
007
       left: 0;
008 }
009
```

Build a news content switcher with jQuery & CSS3



Fixing Transition Artifacts

Use transform: translateZ(0) on the transitioned element to fix streaks or other artifacts occurring with CSS3 transitions.

```
010 .top-content {
011    z-index: 50;
012 }
```

Negative margin

We want the white highlight bar to appear as though it's flowing right into the content area on the right-side of the widget. To do this, we'll apply a negative margin to the content section, along with a z-index value that's lower than that of the highlight bar itself.

```
001 .news-preview {
002
     float: left;
003
     border: solid 1px #999;
004
     width: 51%;
005
     background: white;
006
      position: relative;
007
     z-index: 5;
008
     margin-left: -1px;
009
     min-height: 304px;
```

```
010 position: relative;
011 }
```

Responsive images

This isn't a fully-fledged responsive images solution that uses different image resolutions, but instead we'll just add some simple CSS to help keep the image at a maximum size while reducing its size for smaller devices. The key parts of this code block are the width, height, max-width, and max-height properties:

```
.news-preview img
002 {
003
       display: block;
004
       border: solid 1px #999;
005
       width: 100%;
006
       height: auto;
007
       max-width: 220px;
008
       max-height: 143px;
009
       margin: 0 auto 5px auto;
010 }
```

The highlight bar

Finally, the last list item in our headlines list is an empty element that's used as the highlight bar, to indicate the current selected item. Semantic purists might want to inject this element with JavaScript to keep the HTML clean. We'll apply the following default styles to help position it:

```
001 .news-headlines .highlight {
002
        width: 100%:
003
        background: white;
004
        border-top: solid 1px #999;
005
        border-left: solid 1px #999;
006
        border-bottom: solid 1px #999;
007
        position: absolute;
008
        top: 0:
009
        left: 0;
010
        z-index: 10;
011 }
```

Defining our variables

The first thing our script will do is cache some objects that we'll refer to multiple times in our code. Then we'll initiate some utility variables, some of which are set initially to null because they depend on values that aren't constant. The vPadding and vMargin variables are used to calculate the size of the headline items so that it can be fully controlled with CSS and thus will be more maintainable.

```
001 var hl = $('.highlight'),
002    newsList = $('.news-headlines'),
003    newsListItems = $('.news-headlines
li'),
004    firstNewsItem = $('.news-headlines
li:nth-child(1)'),
005    newsPreview = $('.news-preview'),
```

```
elCount = $('.news-headlines').
children(':not(.highlight)').index(),
       vPadding = (parseInt(firstNewsItem.
css('padding-top').replace('px', ''), 10)) +
(parseInt(firstNewsItem.css('padding-bottom').
replace('px', ''), 10)),
008
       vMargin = (parseInt(firstNewsItem.
css('margin-top').replace('px', ''), 10)) +
(parseInt(firstNewsItem.css('margin-bottom').
replace('px', ''), 10)),
009
       myTimer = null,
010
       siblings = null,
011
       totalHeight = null,
012
       indexEl = 1,
013
       i = null;
```

Equal height columns

Our widget is divided into two columns. To ensure the sides are relatively equal, even after the user resizes the browser window, we'll create a function that will equal out the columns depending on which side is bigger. The function uses a min-height value set in the CSS, again keeping this data outside the script itself.

```
001 function doEqualHeight() {
002
003
      if (newsPreview.height() < newsList.</pre>
height()) {
004
         newsPreview.height(newsList.
height());
       } else if ((newsList.height() <</pre>
newsPreview.height()) && (newsList.height()
> parseInt(newsPreview.css('min-height').
replace('px', ''), 10))) {
006
         newsPreview.height(newsList.
height()):
007
       }
008
009 }
```

Auto change

We want the widget to cycle through the headlines automatically. For this, we'll create a function that uses JavaScript's setInterval() method. This function will trigger a click event every ten seconds. Each time the click event is triggered, the selected news item changes. If the current selected element is the last element, it will cycle back to item one.

```
001 function doTimedSwitch() {
002
003
       myTimer = setInterval(function () {
004
         if (($('.selected').prev().index() +
1) === elCount) {
005
           firstNewsItem.trigger('click');
006
         } else {
007
           $('.selected').next(':not(.
highlight)').trigger('click');
008
009
       }, 10000);
```

```
010
011 }
```

The click function

Next, let's begin our primary function, the doClickItem() function. We'll start by adding the click event to our news items. This event gets triggered either manually by the user, or automatically by the script, using jQuery's trigger() method. We remove any instances of the selected class, and add the selected class to the currently clicked item.

```
001 function doClickItem() {
002
003
     newsListItems.on('click', function () {
004
005
       newsListItems.removeClass('selected');
       $(this).addClass('selected');
996
997
008
       // further code is added here in
subsequent steps...
009
010 });
011
012 }
```

Calculate highlight position

Lets add to our doClickItem() function. We want to find out how many items appear before the current highlighted item. Once we know that (which we get using jQuery's prevAll()), we set the totalHeight variable to zero, and then loop through the items. We add up the total height of all the items, plus any vertical padding and margins.

```
001 siblings = $(this).prevAll();
002 totalHeight = 0;
003
004 for (i = 0; i < siblings.length; i += 1) {
005     totalHeight += $(siblings[i]).height();
006     totalHeight += vPadding;
007     totalHeight += vMargin;
008 }</pre>
```

Move the highlight

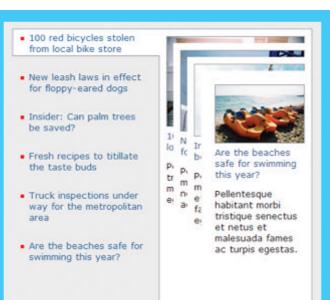
Using the totalHeight calculation from the previous step, we use jQuery's css() method to set the top and height values of the highlight element (cached in our variables as hl). Because we've set a CSS3 transition on the list items using the all keyword (which means transition all properties), the top and height values will animate when changed with JavaScript.

```
001 hl.css({
002    top: totalHeight,
003    height: $(this).height() + vPadding
004 });
```

Show news item

Further adding to our doClickItem() function, we find out the index of the current highlighted element using jQuery's index() method, adding one to the result to account for zero-based indexing. Once we know that, we use that number to add the top-content class to the corresponding .news-content element, thus putting it at the top of the stack so it's visible.

```
001 indexEl = $(this).index() + 1;
002
```



<Left>Our content items (staggered here for effect) are stacked with z-index values, which change when an item is selected

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Build a news content switcher with jQuery & CSS3

```
003 $('.news-content:nth-child(' + indexEl +
')').siblings().removeClass('top-content');
004 $('.news-content:nth-child(' + indexEl +
')').addClass('top-content');
```

Finishing up doClickItem()

Finally, to wrap up our doClickItem() function, we use JavaScript's clearInterval() method to stop the timer, and then we start it again by calling the doTimedSwitch () function we created earlier. We stop the timer to ensure ten seconds is spent on the newly clicked item.

```
001 clearInterval(myTimer);
002 doTimedSwitch();
```

Window resizing

To ensure that our widget looks decent if the window is resized by the user, we'll set up a function that uses jQuery's \$(window).resize() method. This method will execute an anonymous function each time the window is resized. The first thing we'll do in that function is stop the timer.

```
001 function doWindowResize() {
002 $(window).resize(function () {
003 clearInterval(myTimer);
004 });
005 }
```

Correct the heights

The doWindowResize() function continues when we use JavaScript's setTimeout() method to trigger a delayed click event on the selected item (to account for time spent resizing the window). This ensures that the white highlight bar is the correct height. Finally, we ensure the two sides of the widget are equal in height by calling our doEqualHeight() function.

```
001 function doWindowResize() {
002  $(window).resize(function () {
003    clearInterval(myTimer);
004    setTimeout(function () {
005  $('.selected').trigger('click');
006    }, 1000 );
007    doEqualHeight();
008  });
009 }
```

Initiate the script

Finally, now that we have defined all of our variables and functions, we execute all three functions and then trigger a click event on the currently selected element to get things started.

```
001 doClickItem();
002 doWindowResize();
003 setTimeout(function () {
004    doEqualHeight();
005 }, 500);
006 $('.selected').trigger('click');
```

Code library

The essential elements

Here we cherry pick the key components of the content switcher for a closer look at them in action

```
001 var hl = $('.highlight'),
                            newsList = $('.news-headlines'),
Here we set up our
                      003
                             newsListItems = $('.news-headlines li'),
cached objects and
utility variables.
                      004
                             firstNewsItem = $('.news-headlines li:nth-child(1)'),
                      005
                             newsPreview = $('.news-preview'),
                             elCount = $('.news-headlines').children(':not(.
                      highlight)').index(),
                            vPadding = (parseInt(firstNewsItem.css('padding-top').
                      replace('px', ''), 10)) +
                                                       (parseInt(firstNewsItem.
                      css('padding-bottom').replace('px', ''), 10)),
                             vMargin = (parseInt(firstNewsItem.
                      css('margin-top').replace('px', ''), 10)) +
                      (parseInt(firstNewsItem.css('margin-bottom').replace('px', ''),
                      10)),
                      009
                             myTimer = null,
                      010
                            siblings = null,
                             totalHeight = null,
                             indexEl = 1,
                             i = null:
                      001 function doEqualHeight() {
                      002
```

The functions to equalize the column heights and do the auto-timed switching.

```
002
003 if (newsPreview.height() < newsList.height()) {
004    newsPreview.height(newsList.height());
005 } else if ((newsList.height() < newsPreview.height())
&& (newsList.height() > parseInt(newsPreview.css('min-height').
replace('px', ''), 10))) {
006    newsPreview.height(newsList.height());
007 }
008
010 }
```

```
001 function doWindowResize() {
002
003
       $(window).resize(function () {
004
005
         clearInterval(myTimer);
006
         setTimeout(function () {
007
           $('.selected').trigger('click');
008
         }, 1000);
009
010
         doEqualHeight();
011
012
       });
013
014 }
015
016 doClickItem();
017 doWindowResize();
018 setTimeout(function () {
019
     doEqualHeight();
```

Correct some height values when the window is resized, then initiate the script's functions.

020 }, 500);

021 \$('.selected').trigger('click');



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Capture webcam video without a plug-in

Capture webcam video without a plug-in

Use JavaScript and HTML5 to cut out third-party applications and Flash components for webcam use

tools | tech | trends Dreamweaver, HTML5, JavaScript **expert** Pete Simmons





TML5 is fast becoming the developer tool of choice, moving away from heavy Flash apps, and switching to a fast, lightweight solution. A new generation of web interaction is coming, where users are able to play full games in their browser without a hint of Flash.

Typically, interacting with a user's webcam required a third-party

application or a Flash component, but now we can access this data via the cutting-edge HTML5 technology known as getUserMedia. As with anything this new and exciting there are bound to be some teething problems, the main one is the cross-browser compatibility of getUserMedia. It is recommended that you use the latest version of Chrome as most other browsers simply won't work. We'll cover a bit on using Flash as a fallback to HTML5, but it is probably wise to hold off putting this technology into a production environment until it becomes standardised.

Another problem with getUserMedia is that no browsers currently support the use of audio. This is fine for this tutorial as we will only be covering images, but worth noting if you want to deviate from the tutorial steps.

HTML page setup

Before we get into any coding, it is worth noting that the DOCTYPE for an HTML5 page is different from a standard page. There is a lot less information that goes into it as HTML5-compatible browsers do not require as much information. Create a new HTML document and replace the standard DOCTYPE information with the following.

001 <!DOCTYPE html>
002 <head>
003 <title>WebCam Access</title>
004 </head>
005
006 <body>
007 </body>
008 </html>

The video tag

Go into the body section of your HTML document and add the following video tag. The video tag is new to HTML5 and allows us to easily embed video into a page, simply by adding a source. In this case we do not need a source, but can just add an autoplay element.

001 <video autoplay></video>

O3 Link to a JS file

We'll create our webcam access script in a separate JS file. This allows us to use it on multiple sites and pages if need be. Add the following code underneath our video tag. Go ahead and create a new

JS document called 'webcam.js' and save it into the same directory as your index file.

001 <script src="webcam.js"></script>

Checking browser capabilities

The first thing we will do in our webcam, is file is check to make sure that the browser used is capable of calling the getUserMedia command. This can be done with the following JavaScript code. Everything we do from here on in will be placed inside this if statement.

001 if(navigator.webkitGetUserMedia!=null) {
002
003 }

Requesting feeds

At this point we need to set some options that we will use further down the line. As mentioned in the introduction to this tutorial, there are problems accessing audio via a webcam. However, we will set audio to true for future use. Add the following code within the previous if statement.

Calling getUserMedia

It's now time to make a call to getUserMedia from within our webcam, is file. Place the following code underneath the closing bracket of the previous step, but

before the closing bracket of our if statement. This code will call getUserMedia and pass all of our required options through.

001 navigator.webkitGetUserMedia(options,
002
003);

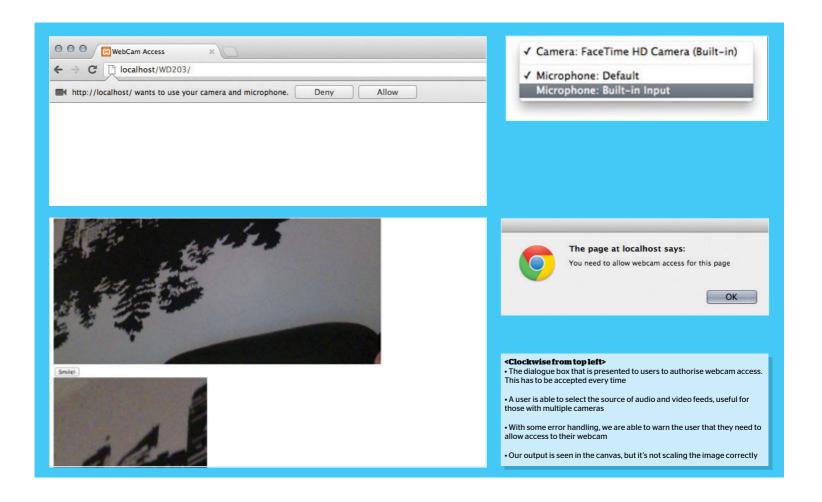
Add streaming function

Within the brackets of the previous step, add the following function. This function, when called, will look for our video tag and create an object URL based on it. This object URL will be used at various points in our code further on. Remember to place this within our if statement still.

Error handling

The next step is to add an error statement that will write data to console log if there is a problem with getUserMedia. Add the following underneath our previous step, still within the navigator.webkitGetUser Media brackets. Now we will be able to debug our code via the console if there is a problem.

001 function(e) {
002 console.log("There was a problem



with webkitGetUserMedia");
003 }

Running our code

It's finally time to run our code! Open the latest version of Google Chrome and navigate to your working directory. The first thing you will notice is a notification in your browser window, asking for permission to access the webcam. Click Allow and you should see a livestream from your webcam.

In-browser options

You may also notice that the notification bar in Google Chrome has an option drop-down menu.

Opening this will allow a user to select which webcam the application has access to. Sound options are also displayed here, even though we cannot use them at this stage. If you have multiple cameras connected to your machine, try out the different options.

Handling a denied request

If a user clicks Deny in the previous step, our code will fail and we will have no way of informing them why. The easiest thing to do is to create an alert event that is tied into the error console. This can be done by

amending our console.log section to include the following additional line.

001 function(e) {
002 alert("You need to allow webcam access
for this page");
003

004

Adding a capture button

Now we need a way to capture a still image from our webcam feed. Go back to your index.html file. Adding the following form element underneath our video tag will give us the means to capture a still image using some more JavaScript and a canvas element that we will add over the next few steps.

001 <form><input type='button' id='capture'
value="Smile!"/></form>

Adding a canvas

Canvas is another new element to HTML5.

Adding the following tag underneath the previous step will give us a place to display the captured image once

it has been processed by the JavaScript. You can set the width and height to anything you like, but remember that not all webcams are HD and may produce bad image quality.

001 <canvas id='canvas' width='300' height='300'></canvas>

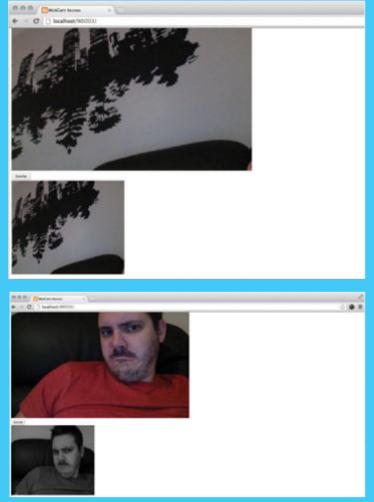
Link button to JavaScript

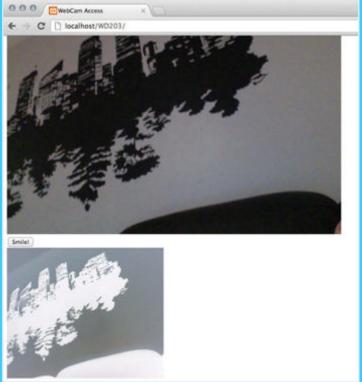
Adding the following script code underneath the previous step will link our button to our JavaScript. The code listens out for a click on a button with the ID capture. If you have multiple buttons on your page that do different things, ensure all IDs are unique. This code also determines the video source and canvas output.

```
001 <script language='JavaScript'>
document.getElementById('capture').onclick =
function() {
002    var video = document.
querySelector('video');
003    var canvas = document.
getElementById('canvas');
004 }
005 </script>
```

<tutorials>

Capture webcam video without a plug-in





<Clockwise from top left>

- Our output is now scaled correctly, showing the entire resized image on the HTML canvas
- · By looping through pixel data we are able to invert the pixels of the original image
- \bullet We can also remove all colour and make the image greyscale by looping through the same data, and reducing all RGB values by 255

Outputting an image

Adding two more lines of code to the previous step will draw the captured image into our canvas. As you can see, the canvas can be used for both 2D and 3D elements. As we are working with images, we set this to 2D. Running the code now will show a captured image in our canvas.

001 document.getElementById('capture'). onclick = function() { 002 var video = document. querySelector('video'); var canvas = document. getElementById('canvas'); 004 var ctx = canvas.getContext('2d'); 005 ctx.drawImage(video,0,0); 006 }

Use on mobile

As it currently stands mobile browsers do not support getUserMedia. Hopefully, further down the line they will, allowing developers access to an iPhone camera in-browser.

Non-cropped images

The eagle-eyed among you may have noticed that the image we produced in the previous step was very heavily cropped. To avoid this and to display a full size image, we simply have to pass two more variables into our ctx.drawlmage command. By passing a width and a height we are able to scale our image to the canvas size, rather than capturing the top-left section

001 ctx.drawImage(video,0,0,300,250);

Getting image data

What else can we do with our image? Well, we can modify the pixel data with code. An example of this is replacing all colour with greyscale. To do this we first need to interpret the pixel data with the following line.

001 var data = ctx.getImageData(0,0,canvas. width,canvas.height);

Creating a loop

Now we have the pixel data of the image set as a variable, we can loop through and remove all colour. The following code bracket sets us up with a loop that will do just that. Add this within the onclick brackets underneath the previous step. The loop will stop once it reaches the image width and height.

for(n=0; n<data.width*data.height; n++) {</pre> 002 003

56

Removing all colour

The following complete loop will take the red, green and blue channels and reduce the data value by 255. Those familiar with RGB values will know that any colour can be made using a combination of red, green and blue in 255 increments. Taking these all to 0 will produce a black and white image.

Outputting the image

Now we have removed all colour, we can output our new black and white image. Placing this code outside of the loop will put the new pixel data back into the canvas, at this point you can specify a new canvas if you wish to keep the original, unedited capture.

001 ctx.putImageData(data,0,0);

Flash fallback

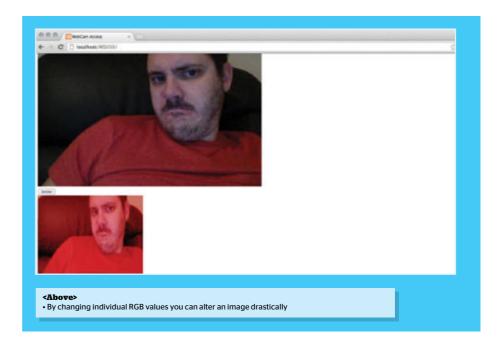
As mentioned before, webcam access is only available in a select few browsers. To combat this we will use a jQuery fallback. Download the jQuery webcam plug-in from **bit.ly/c8LYyY**, copy the files to your working directory and add the following lines of code to the head section of your index.html file.

```
001 <script src="http://code.jquery.com/jquery-
1.7.2.min.js"></script>
002 <script type="text/JavaScript" src="jquery.
webcam.min.js"></script>
```

Add a flash version

Adding the following code under our video tag in the index.html file will display the Flash fallback. The correct way to do this would be to create two pages and do some level of browser detection. You would then have a Flash or HTML5 version depending on the capabilities of a user's browser.

```
001 <div id="webcam"></div>
002 <a href="JavaScript:webcam.
capture();void(0);">Smile!</a>
003 <script type="text/JavaScript">
004 jQuery("#webcam").webcam({
005 width: 320,
006 height: 240,
007 mode: "callback",
008 swffile: "jscam.swf",
009 });
010 </script>
```



Code library

including some basic

error handling.

Playing with pixels

In this tutorial we are taking raw pixel data and manipulating it through code. Here's how it's done

```
001 document.getElementById('capture').onclick = function() {
                       002
                              var video = document.querySelector('video');
A capture is saved to
                       003
                              var canvas = document.getElementById('canvas');
the canvas by
                       004
                              var ctx = canvas.getContext('2d');
listening out for a
form button press.
                              ctx.drawImage(video,0,0,300,250);
                      001 var data = ctx.getImageData(0,0,canvas.width,canvas.height);
The pixel data is set as a
                      003 for(n=0; n<data.width*data.height; n++) {
variable, then a loop is
created to remove all
                      004
                                  var index = n*4;
colour values.
                      005
                                  data.data[index+0] = 255-data.data[index+0];
                      006
                                  data.data[index+1] = 255-data.data[index+1];
                      007
                                  data.data[index+2] = 255-data.data[index+2];
                      008
                              }
                      009
                      010 ctx.putImageData(data,0,0);
                      001 navigator.webkitGetUserMedia(options,
                       002
                                  function(stream) {
The process in the
back end that is doing
                      003
                                       var video = document.querySelector('video');
all the hard work,
                       004
                                       video.src = window.webkitURL.
```

createObjectURL(stream);

webkitGetUserMedia");

function(e) {

005 006

007

008

009

010

tutorials 57

alert("You need to allow webcam access for this page");

console.log("There was a problem with

Create a site with 3D CSS navigation using Meny.js

Surprising your website visitors with playful interactions is a great way to build a loyal following for your site

tools|tech|trends Photoshop, Dreamweaver **expert** Sam Hampton-Smith





ss3 has completely revolutionised the way designers create websites, from simple things like rounded corners no longer being rendered as graphics, to complex user interactions.

Much of what is possible is still being discovered by web designers - both professionals

and novices - and the result is a rich diversity in design approaches and user interface.

In this tutorial we're going to build a simple website design from a Photoshop mockup, but rather than stick with the original navigation design, we'll use an open-sourced GitHub-hosted project that uses CSS3 to render our navigation as a 3D element that rotates into view when the mouse moves over the top of the page.

Although the project uses JavaScript, all the user interaction effects are rendered entirely using CSS, so all the benefits of native browser rendering are retained, and it's also compatible with touch-based devices such as the iPad.

Mock up your site

We need a design to work with, so we've created a simple page mockup inside Photoshop to use as the basis for this tutorial. You can find the PSD file on the resource disc, or use your own design if you prefer. Note the simple navigation bar running along the top of our design.

001 mkdir underscores002 cd underscores003 wget http://wordpress.org/latest.tar.gz

The basic page

004 tar xfz latest.tar.gz

We're rendering our page using several of the new tags found in HTML5. This ensures that our code is semantic (ie it describes its content correctly) and is as lean as possible. Create your basic HTML to match your design, or copy ours from the resource disc, on which you can find the code for this step.

Understanding the markup

You'll notice that we've separated out the two parts of the page so that the menu sits independently from the rest of the page, and a single container has all the content we'll want to rotate when showing the menu - this is important for the function of the script later on, and helps us achieve the right effect.

001 <div class="menu">
002 <!--The menu will be shown by rotating in 3D space -->
003 <nav>...</nav>

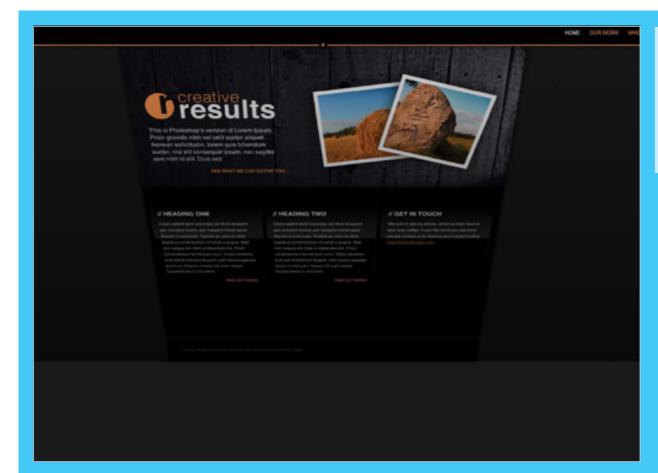
004 </div>
005 <div class="container">
006 <!-- Everything inside the container
will be rotated slightly when the menu is shown
-->
007 <header>...</header>
008 <article>...</heater>
009 <footer>...</footer>
010 </div>

Simple styles

We need to create the basic styles for our page to create the look of our mockup. We've already saved a few background images from our mockup to our /styles/ folder where necessary, and we'll apply these to our design, along with some layout and typographical rules now.

```
001 body {
      background:
002
                             #1a1a1a:
003
      color:
004
      font-family:
                             helvetica, arial,
sans-serif;
      font-size:
                             62.5%;
006
      line-height:
                             2.1em;
007
      margin:
008
      padding:
009 }
010
011 header, article, footer {
012
      margin:
013
      padding:
                   0:
014
      display:
                   block:
```

015 width: 016 margin: auto; 017 box-shadow: 0px 0px 10px #000; 018 #000; background: 019 font-size: 1.2em: 020 } 021 022 article { 023 padding-top: 40px: 024 min-height: 500px; 025 } 026 027 article section { 028 width: 263px; 029 background: transparent url(boxshine.jpg) repeat-x top left; min-height: 200px: 031 1px solid border-right: #1a1a1a: 032 float: left: 033 margin-left: 10px: 034 padding: 20px; 035 } 036 037 .lastword { 038 clear: both; 039 } 040 041 footer { 042 padding: 40px; 043 width: 880px: 044 color: #999: 045 }



-As the visitor moves their mouse over the top area of the page, the entire page rotates away 15 degrees to reveal the menu along the top edge of the screen. This behaviour is hinted at with a handle that appears along the top edge of the design when the menu isn't visible

More CSS

We need to render the logo and introduction text so that it matches our mockup. Firstly, make sure you've saved your logo file out of your graphics editor (or use ours on the resource disc), then add the styles shown to hide the <h1> text and replace it with the logo as a background.

001	#logo {			
002	width:	340px;		
003	float:	left;		
004	margin-left:		40px;	
005	margin-top:		100px;	
006	margin-right	:		40px;
007	}			
800				
009	#logo h1 {			
010	width:	320px;		
011	height:		80px;	
012	overflow:	hidden;		
013	text-indent:		-10000px;	
014	background:		transpare	nt
	url(logo.png)	no-repeat	top left;
015	}			



Render the menu

One of the most important elements in any page design is the navigation, and our design is no different. We've opted for a simple approach because the 3D effect will add enough user interaction without needing to get too elaborate in our design, but it's essential to render our design carefully.

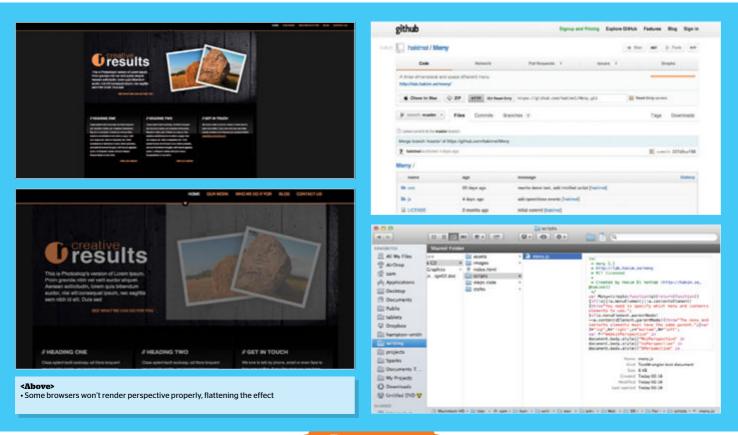
Rounded corners = circles

Creating a circular <div>
element is easy with CSS3
rounded corners. Set your
<div> to have equal width
and height values, and the
border-radius property to half
your element's width

```
001 nav {
      position: relative;
     // add a border to provide a hint to the
visitor
004
      // that they can reveal the menu at the
top of the page
005
    border-bottom:
                                     2px solid
#fe9758;
006
      background:
                            #000;
007
      color:
                  #fe9758:
008
      height:
                  50px;
      display:
009
                  block;
      box-shadow:
                           0px 0px 10px #000;
```

<tutorials>

Create a site with 3D CSS navigation using Meny is



011 z-index: 1: 012 } 013 014 nav ul { 015 position: relative; 016 margin: 0; 017 padding: 018 text-align: right; 019 z-index: 100; 020 background: #000; 021 padding-right: 100px; 022 } 023 024 nav ul li { 025 list-style: none: 026 margin: 027 padding: 5px 10px; 028 display: inline-block; 029 line-height: 030 z-index: 031 } 032 033 nav ul li a { 034 text-decoration: none: 035 font-size: 1.2em; 036 color: #fe9758; 037 z-index: 100;

Browser vendor prefixes

The script handles most browser vendor prefix issues for the best compatibility. If you're creating your own, use the W3C proposed version of any CSS3 property last for future compatibility.

038 }
039
040 nav ul li a.active, nav ul li a:hover {
041 color: #fff;

Building a handle

The border we've added at the bottom of our navigation bar isn't yet sufficient to let our visitors know what they need to do, so we've added a <div> to our HTML that will become a handle that has an arrow set within. This is all achieved using CSS instead of pre-rendered graphics. Add the code shown to set up the required properties.

```
004
      border-radius:
                                      10px:
005
      position:
                 absolute;
006
      top:
                 40px;
007
      left:
                  50%:
008
      margin-left:
                            -10px;
009
      background:
                            #000;
010
      z-index:
011 }
012
013 nav #handle .downarrow {
                            5px solid
014
     border:
transparent;
                            8px solid #FE9658;
      border-top:
015
016
      position:
                  absolute;
017
      left:
                  5px:
018
      bottom:
                            0px;
019 }
```

Add finesse

The design is looking a whole lot closer to the mockup now, but we still need to make some additional design touches, such as the shine behind each section, the subtle dividing lines, and a drop shadow to separate the design from its background. Add the CSS code shown to finalise these aesthetically embellishing design elements, and get closer to the final site.

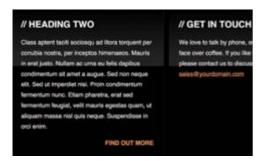
60____tutorials

001	article sectio	n {			
002	width:	263px;			
003	background:		transpar	ent	
url(boxshine.jpg) r	repeat-x	top left;		
004	min-height:		200px;		
005	border-right	::		1px	solid
#1a1	a1a;				
006	float:	left;			
007	margin-left:		10px;		
008	padding:	20px;			
009	}				
010					
011	header, articl	e, footer	{		
012	box-shadow:		0рх 0рх	10px	#000;

Basic layouts

Last but by no means least, the final part of our design that's missing is the styling of the links. We've got two different types of links – calls to action at the bottom of each section inside our main article area, and an inline email link that appears in the final section. Both should be coloured orange to match the design, but the call-to-action links also need some additional styling. Add this now.

```
001 a {
002 color:
                         #FE9659;
003 }
004
005 a.calltoaction {
                                  bold;
996
    font-weight:
     color:
                         #FE9659:
007
008
     text-align:
right:
009 text-transform:
uppercase;
010
      float:
                         right;
011
      display:
                         block;
012
      cursor:
                         pointer;
013 }
```



Test and review

Before going any further, it's important to ensure your page design is working as you intended in all your target browsers. Load your page in each browser and check that everything is rendering as intended. Correct any issues before moving on as once the script is installed it may be difficult to track down bugs!

11 Grab the script

We're going to use an open-source project created by the interactive web developer Hakim El Hattab to create the 3D transition effect in our site design. Start by visiting the GitHub page for the Meny project at github.com/hakimel/meny#meny and read the installation instructions. Download the JavaScript file ready for use.

Include the script

In order to use the Meny system, we need to first include the file we downloaded in the previous step at the top of our page. Inside the <head> section, add the following code (assuming you saved the JavaScript file into a folder named /scripts/): <script src="scripts/meny.js" type="text/javascript"></script>.

Call the script

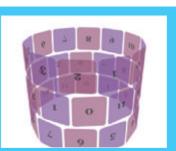
Next we need to initialise the script by calling it, and passing in some arguments that will define the parameters we'll use on our page. This code needs to be called after the elements have been loaded by the browser, so place it immediately before your closing </body> tag to ensure all the HTML has been loaded by the time the code is executed.

```
001 <script>
002
        // Call the Meny object
003
         var meny = Meny.create({
004
           // pass in a reference to the menu
container
005
           menuElement: document.guervSelector(
'.menu'),
006
           // and a reference to the container
to be rotated
007
           contentsElement: document.
querySelector( '.container' ),
008
           // tell the script where the menu is
located
           position: 'top',
009
010
           // and how many pixels tall the menu
is
011
           height: 50
012
        });
013
      </script>
```

Understanding the options

If you check the code we've just used, you'll see that we set a number of options for the function to determine the containers to be rotated, the height of the menu, and its position. These values are essential to the operation of the effect, and you can find the full details on the project GitHub page, which is once again at github.com/hakimel/meny#meny.

```
<mark>001</mark> var meny = Meny.create({
       // The element that will be
animated in from off screen
       menuElement: document.
querySelector( '.meny' ),
004
005
        // The contents that gets pushed
aside while Meny is active
       contentsElement: document.
querySelector( '.contents' ),
007
       // The alignment of the menu
008
(top/right/bottom/left)
009
       position: 'left',
010
011
       // The height of the menu (when
using top/bottom position)
012
       height: 200,
013
014
       // The width of the menu (when
```



CSS33D Transformations

Understanding the concept behind 3D transformations in CSS3 is pretty straightforward: the element is rotated about a single (or multiple) axis, and the browser handles this for you, rendering in a 3D scene. The reality of it is a little less predictable if you're not familiar with 3D rendering, however - the origin for a transformation, the perspective of the viewpoint and element, and the collapsing of other transformations can quickly make for a mess when you're trying to create a simple effect. Also keep in mind that currently only WebKit browsers fully support the proposed 3D transformations (although this will change over time).

A great place to start understanding how transformations work is the WebKit blog, which has a series of examples and explanations to help you get up and running quickly: www.webkit.org/blog/386/3d-transforms.

Create a site with 3D CSS navigation using Meny is

using left/right position)
015 width: 260

15 Custon

Customise your CSS and script

Although we've already set up our styles, if you wanted to make additional changes to the way the effect looks you could use the hooks created by the script. A class is applied to the elements being affected, which allows you to add your own styles. There's also a JavaScript event generated that you can listen for. Again, documentation can be located on the GitHub page.

```
001 var meny = Meny.create( ... ) // Initialize
as before
002
003 meny.addEventListener( 'open', function() {
004
005
       // do something on open
006
007 });
008
009 meny.addEventListener( 'close', function()
011
012
       // do something on close
013
014 });
```

Test and review

With your script in place, you need to test across browsers once more to ensure you're aware of any issues, and the limitations of older browsers that don't support 3D transformations and/or perspective. Try running your page with JavaScript disabled to see what happens (and make sure you fix any issues with navigation when scripting isn't available).

17 Tweak the effect

Finally, now that you've got a working effect it's time to tweak it to your own taste. Make sure that the menu is a good height relative to the size of your navigation element, the handle is big enough to be obvious, and so on. These final tweaks can make all the difference in use.



Code library

Breaking down the CSS

The 3D element is handled by inline styles added by the JavaScript, but it wouldn't work without our core CSS in place:

```
001 nav {
We've styled our
                       002
                              position:
                                            relative:
main < nav > HTML5
                       003
                              border-bottom:
                                                                  2px solid #fe9758;
element with an
obvious bottom
                       004
                              background:
                                                       #000;
border that will
                       005
                              color:
                                            #fe9758;
provide a visual cue
                       006
                              height:
                                            50px;
to the visitor.
                              display:
                       007
                                            block:
                       008
                              box-shadow:
                                                       0px 0px 10px #000;
                       009
                              z-index:
                       010 }
                       011 nav ul {
The unordered list is
                       012
                                            relative;
                              position:
styled in exactly the
                       013
                              margin:
                                            0:
same way as in a
regular horizontal
                       014
                              padding:
menu bar, using
                       015
                              text-align:
                                                       right;
inline-block instead of
                       016
                              z-index:
                                            100;
floats to allow us to
easily right align.
                       017
                              background:
                                                       #000;
                       018
                              padding-right:
                                                                  100px;
                       019 }
                       020 nav ul li {
                       021
                              list-style:
                                                       none;
                       022
                              margin:
                                            0;
                       023
                              padding:
                                            5px 10px;
                       024
                              display:
                                            inline-block;
                       025
                              line-height:
                                                       35px:
                       026
                              z-index:
                                            100:
                       027 }
                       028 nav ul li a {
The orange border
                       029
                              text-decoration:
                                                       none:
isn't enough of a cue
                       030
                              font-size:
                                                       1.2em;
on its own, so we've
                       031
                              color:
                                            #fe9758;
added a handle with
rounded corners to
                       032
                              z-index:
                                            100:
make a perfect circle.
                       033 }
                       034 nav ul li a.active, nav ul li a:hover {
                       035
                              color:
                                            #fff;
                       036 }
                       037 nav #handle {
                       038
                              width:
                                            20px:
                       039
                              height:
                                            20px:
                       040
                              border-radius:
                                                                  10px;
                       041
                              position:
                                            absolute;
                       042 top:
                                        40px;
                       043
                              left:
                       044
                              margin-left:
                                                       -10px;
                       045
                              background:
                                                       #000;
                       046
                              z-index:
                       047 }
                       048 nav #handle .downarrow {
We create an arrow
                       049
                              border:
                                            5px solid transparent;
head using borders
                       050
                              border-top:
                                                       8px solid #FE9658;
on a <div> with no
width or height - this
                       051
                              position:
                                            absolute:
avoids having to
                       052
                              left:
                                            5px:
render a graphic for
                              bottom:
                                            0px;
the effect.
```

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Create stitched effects on your webpage

Create stitched effects on your webpage

Use the power of Photoshop to simulate textures and stitching, giving your site an authentic look

tools | tech | trends | Photoshop expert Adam Smith





here's a noticeable style trending at present, and that is the popular stitched effect, used to decorate logos and panels in numerous web design layouts. This is a great way to add a real-world feel to your projects, giving designs an aesthetic that you can almost touch. It's no surprise then, that the purpose of applying the stitch is most

noticeable when working with textured elements. These are, in turn, fundamental to achieving a wholly authentic look on your website.

In this tutorial, we'll show you how to use some of Photoshop's one-click and more intuitive options to cleverly combine stitch and texture effects. The use of Layer Styles will become the main focus of your application, applying Drop Shadow, Stroke, and Bevel & Emboss effects to create 3D looks. Also explored are the means with which you can create similar stitch effects using CSS3 code, for those of you that want a quicker fix than Photoshop allows.

Sketch it out

The first step when embarking on a project like this is to sketch out your ideas, getting a grip on what functionality you'd like to incorporate, how the user will interact with your gallery, and at least an idea of the visual approach you'd like to take. Spend five minutes with your sketch pad or a scrap of paper to work out the basics first!



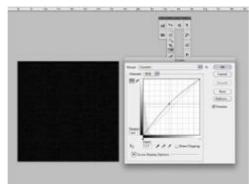
Create texture

Select File>New. Set Width at 450 pixels, Height at 450 pixels, Background Contents to Black. Select Filter>Texture>Texturize. Set Texture to Canvas, Scaling between 90% and 100%, Relief between 2 and 5. Click OK. Duplicate your layer (Ctrl/Cmd+J) and select Edit>Transform>Rotate 90° CW. Set the duplicate layer blending mode to Screen, editing layer opacity to verify effect strength.



Edit texture

Merge both layers (Ctrl/Cmd+Shift+E) then press Ctrl/Cmd+E and increase the brightness of your layer by pulling your curve upwards. Select Filter>Sharpen>Smart Sharpen. Set Amount at 50%, Radius at 3.0 pixels. Select Edit>Define Pattern naming it 'Made Texture'. Select File>New. Set Width at 1 pixel, Height at 3 pixels. Zoom in to 3200%.





Save a Pattern Preset

Select 1 pixel (one third) at the top of your layer with the Rectangle Marquee tool. Fill this with black (Shift+F5). Deactivate your selection (Cmd/Ctrl+D) then select Edit>Define Pattern titling Texture Horizontal. Select Image>Image Rotation>90° CCW. Select Edit>Define Pattern, saving as Texture Vertical. Now it's time to apply some texture.



Work with gradients

Easily establish your design's colour scheme by changing the colours of your mock shapes. Simply double click them and choose in the Color Picker. We've applied a pastel purple (#62587C). Select Layer>Layer Style>Gradient Overlay. Set a black to transparent gradient style, setting Blend Mode to Overlay, Opacity at 40%, Style to Radial, and activate Reverse.





<T.oft>

• In this image you can clearly see how we create authentic stitch looks using a combination of special effects combined with photo textures. Some textures are in fact replicated inside Photoshop, with the help of Layer Styles and Noise filters

Add pattern presets

Select Pattern Overlay from the Layer Style options and open the pattern picker. Apply your Texture Horizontal preset, setting Blend Mode to Overlay, Opacity at 40%. Duplicate this layer, setting layer opacity at 70%. Select Filter>Noise>Add Noise, setting Amount at 20%, Distribution to Gaussian, activating Monochromatic. Click OK to exit these options.



Authentic stitch effect

Now we're going to show you how to create one of several stitch effects in this tutorial. Start by activating your banner shape layer and select the Rounded Rectangle tool. Set shape Radius to 2mm then draw out your base shape. Select Gradient Overlay from the Layer Style options. Set a black to white to black gradient style.



Add pattern presets

Also set Blend Mode to Multiply, Opacity at 35%, Angle at O degrees. Activate Outer Glow (Layer Style), setting Blend Mode to Normal, Noise at 17%, Size at 4 pixels and colour to a darker purple. Also apply a Drop Shadow (Layer Style), Opacity at 75%, Angle 21 degrees and repeat the texture application from step 6.



Manual stitch effects

Create a new layer, placed beneath your stitch layer. Apply a 40% Hardness black brush beneath the right edge of your shape. Create another new layer above your stitch layer, applying a small hard 30% white brush, to the bottom edge of your stitch layer, setting blending mode to Overlay.

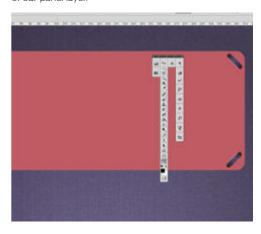


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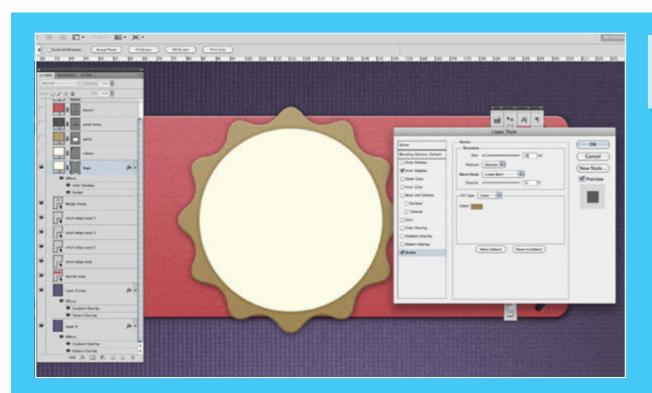
If you are insistent on using real-world textures, but have no time to take your own try sites such as sxc.hu and deviantart.com. Be sure to read terms & conditions, but many samples are free for commercial use.

Place your stitches

The basic premise of your stitch effect is here, creating a looped stitch with a bevelled edge. Shift+click each related stitch layer, Ctrl+click one of these layers and select Convert to Smart Object. Now we duplicate and place our stitches, which are situated in each corner of our panel layer.



Create stitched effects on your webpage



<Left>
• Step 15 - the main banner of the page is really starting to take shape, as elements come together

Perfect with Layer Styles

Compliment this stitch effect by firstly applying a Bevel & Emboss Layer Style. Set Style to Inner Bevel, Technique to Chisel Hard. Set Size at 5 pixels, Angle at 99 degrees. Set Highlight and Shadow Mode opacities at both 70%. Also apply a black to white Gradient Overlay, Angle set at 90 degrees, Blend Mode to Overlay, Opacity at 30%.



Save a style preset

Reactivate your Layer Styles applied to your panel layer at select Styles then click New Style. Name this Entire texture effect. Now you have saved the look of your panel as a preset. Now you can apply uniform Layer Style effects across all your layers. Finish here by transforming your panel layers into a Smart Object.

New CS6

Stroke option

Photoshop CS6 can now be

split into two application - Fill

and Stroke. Simply deactivate

the first, but apply the second,

now with lined and dot styles to

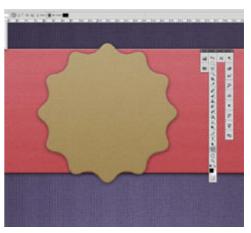
create your stitch. You can also

apply Layer Styles to your Stroke settings.



Add your Style preset

We've created part of our banner, or badge if you will, using the Polygon tool, set at 12 sides, Polygon Options Smooth Corners, Smooth Indents and Star>Indent Side By 20% all active. We then select Layer>Layer Styles>Blending Options and apply our Style preset, with each Layer Style applied fully customisable to create the look you want.



Prepping for the second stitch effect

Activate your logo shape layer and refrain from applying your Style preset. Instead apply a Stroke Layer Style, set at a 20 pixels Size, Position set to Outside, Blend Mode set to Linear Burn. Set your Color to the same as your Polygonal layer. Also apply a 45% Opacity Inner Shadow, Choke set to 35%, Size 5 pixels.

Perfect with Layer Styles (2)

Finish your panel effect by adding a Drop Shadow Layer Style with the Opacity at 40%, Distance at 4 pixels, Size at 30 pixels, and also the same texturing technique that we used in step 6. Take a moment to perceive the combination of effects that help to create one of your authentic stitch effects



66

16

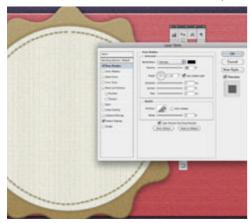
Make a work path from a selection

Finish this layer effect by once again applying texturing effects (see step 6). Ctrl+click your logo layer Vector Mask thumbnail making a selection. Activate the Paths panel and press the Make Work Path from Selection button. Back in your layers panel select the type tool. Click in the outside of your path, apply dashes, and then scale inside your logo shape.



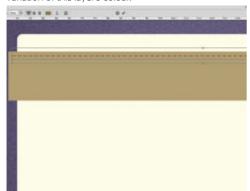
Type stitch effect

Once again you can add texture effects as you see fit. But, you must apply a Drop Shadow Layer Style, setting Opacity at 80%, Distance at 1 pixels, Size at 4 pixels. The effects may seem small when zoomed out, but it's this attention to detail that adds authenticity to



Subtle stitch effects

This effect is similar to the previous Type stitch, but is more subtle. It also seems to work best with straight edges. Begin by activating your Type tool and again typing out dashed lines, this time aligned near the edge of one of your ribbon layers. Use a darker variation of this layer's colour.



Alternate Drop Shadow

With this Type layer active select Drop Shadow from your Layer Style Options. We're going to apply the opposite of what you'd normally expect. Set Color to pure white (#FFFFFF) and Blend Mode to Overlay. Set Opacity at 75%, Angle at -90 degrees, Distance at 2 pixels. A very subtle, yet authentic effect.



Finalise your ribbon

From here apply texture effects to fashion a complete look in your ribbon. To create ribbon edges, simply select the Ellipse tool, draw out a circle shape, place behind both your panel and ribbon layer, and align with the ribbon layer edge. Simply duplicate and place a copy shape the other side to finish the effect.



21 Apply Clipping Mask

From here you can repeat any of the above effects to create authentic looks. However, if you want photo-real textures you can easily apply these. Simply copy and paste in the texture about your layer (sxc.hu; 1154337), set a Luminosity blending mode, 10% Opacity. Ctrl+click your layer and select Create Clipping Mask.





css3 Styling properties

Some of the more hardcore web designers may wish to look outside of Photoshop to create stitch effects. jQuery isn't really an option, but CSS3 now provides you with similar applicable styles through coding.

However, if we've learned anything from this tutorial it's that stitch effects look most authentic when they're combined with several other textures and 3D effects, and applying code becomes no different.

A nice drop shadow with a spread radius is a must. Here is some concise code to get the effect you need. Our Photoshop techniques don't take too long, but if time is against you this is an even speedier solution.

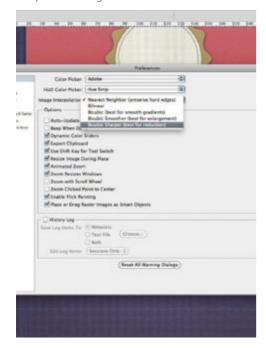
001 .stitched_element {
002 border: 2px dashed
#ffffff;
003 box-shadow: 0 0 0 8px
#ff0030;
004 }

<tutorials>

Create stitched effects on your webpage

Image Interpolation

We've applied a photo texture to our panel, and in some cases you may need to increase or decrease layer size to get the texture detail you want. A little word to the wise - when doing so make sure you're not distorting pixels. Do so by selecting Photoshop> Preferences>General, setting the according Image Interpolation setting.



Piece it all together

Using the effects you've learned here you can now go ahead and style the rest of your panels, button and ribbons. We've applied and tweaked the supplied Entire effects style to our main panel and subsequent buttons. We've used the stitch effect from steps 16 and 17 to create authentic looks.



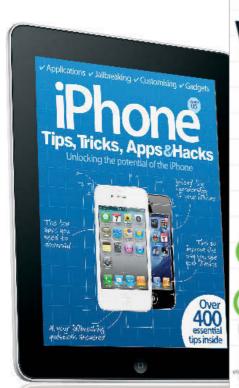
Applying type

You can apply similar effects to your type, but don't over-egg it as this can disrupt the legibility in important information in your website. Use bold type faces – in this case we've used Tahoma and a free Dafont typeface, Bebas (www. dafont.com/bebas.font). We've added a little something extra to our body text, applying a letterpress effect.

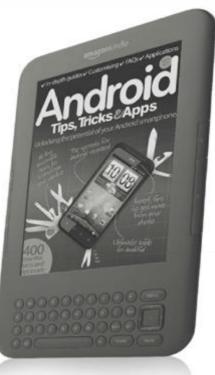




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Making pixelbased sites responsive

Responsive sites are the must-have in this multiscreen environment, and we show you how to take an existing site and convert it over with just a sprinkling of CSS

tools | tech | trends Dreamweaver expert Mark Shufflebottom





ometimes design jobs can seem like they are too difficult, mainly because you've just never encountered those problems before and you think they're going to be a chore. Responsive design is something you might have read about but never taken the plunge into - or maybe you've built a site in a tutorial, but you don't want to tackle it on your own site because you think it involves a redesign. The truth is that if you have an

existing site, most of the work is actually done.

It's incredibly simple to move a site over to a responsive layout, mainly because you're just changing widths into percentages. Doing that alone will make it scale up and down to fit any screen size – but then there's the difficulty of what happens when the columns get too small and images break out of the design. All of this is relatively easy to fix – images can be scaled easily enough, and when a design gets too small we can use media queries to fix them into a single-column design.

So the good news is that it's not impossible, and in this tutorial we are going to take a prebuilt page and show just how easy it is to convert it across to a responsive design.



Getting started

Copy the Start folder to your computer and open the index.html page in your browser. It's a simple two-column, static layout for a 1280px desktop screen. Open the style.css file in Dreamweaver to prepare us to covert this to a percentage-based design. In the body CSS change the line height from pixel-based to em-based and add the font-size property.

001 line-height: 1.2em;
002
003 font-size:100%;

Fix the header

An em is a relative unit, not fixed, so it can scale up and down easier. Some conversion techniques to responsive sites change padding to percentages, but it's not really necessary to do this. Find the header rule and change the width from a fixed 1280px to 100% so that it stretches across the screen.

001 width: 100%;

Change the footer

If you test in the browser now, we can see that we've made the header stretch full-width across the design. As the logo and header is small it will fit in small screen mobile designs as well as the desktop. Let's make that same change within the footer, find the footer rule, and change its width.

001 width: 100%;

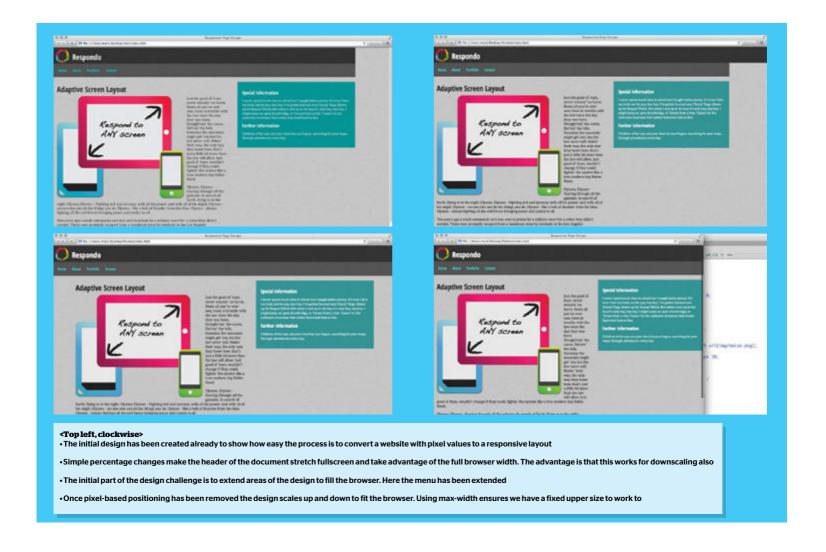
Centring the design

The header and the footer stretch across the screen - let's focus on the menu. This is actually much easier to do as it's an inline-block. Find the menu ul rule and remove the width property so that the rule resembles the code shown below. If you save this and test it in the browser you will see that it displays across the full width of the screen.

```
001 #menu ul {
002
003 margin: 0;
004
005 padding: 10px;
006
007 list-style: none;
008
009 color: #333;
010
011 background:#555 url(img/noise.png);
012
013 overflow: hidden;
014
015 }
```

Centre the text

The text area in the screen is aligned to the left while everything else fills the width of the browser. Now change the content rule as follows. This subtle difference to the width means it will hold at 1280px but collapse if necessary, which is important later. We add the auto property to the margin so that it centres left and right.



001 max-width:1280px;

002

003 margin: 20px auto;

Not scaling

If you test the design so far you will see that the design is centred but does not scale if you try to resize. That's because the sidebar and main divs have pixel-based values. To convert it we use the equation devised by Ethan Marcotte, who first proposed responsive design. This is shown below and applied to 768 pixels of the main section. Don't add this yet.

001 target divided by context = result
002 768 divided by 1280 = 0.6

Change to percent

0.6 isn't very clear as a percentage, but if we move the decimal place two places to the right we get 60%. That's better, so let's add this to the main div content. If you test it, the design should look the same,

because it's the same width displayed as a percentage. It won't scale properly until we change the sidebar.

001 width: 60%;



Convert the sidebar

Find the sidebar CSS rule and change the width

003 background:#399 url(img/noise.png);
004
005 float: left;
006
007 margin: 0 0 20px 1%;
008
009 padding: 0;

It's incredibly simple to move a site over to a responsive layout

and margin as shown below. As you can see the width of the main area plus the sidebar plus the margin adds up to 100%. We didn't really need the equation here because we had to make it add up to 100%, but if you try it, you'll see it works.

001 .sidebar{ 002

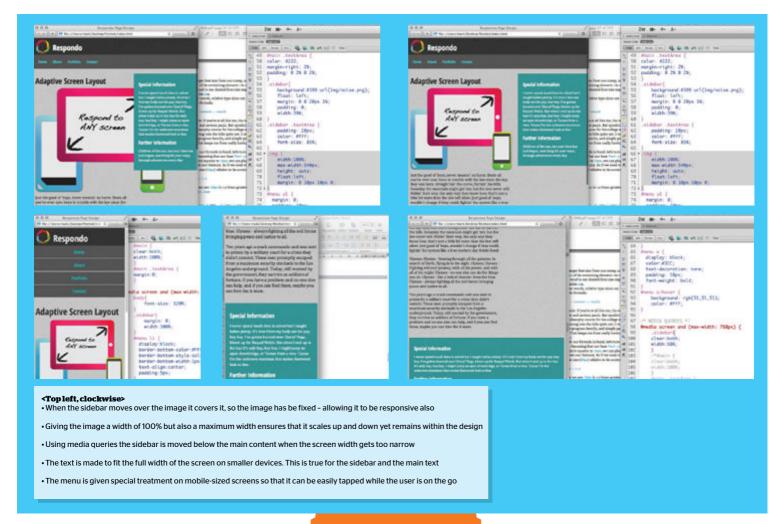
010	
011	width:39%;
012	
013	}

Scaling the image

Save and test in the browser. You can now scale the design down, but as you can see when the browser

<tutorials>

Making pixel-based sites responsive



is small, the sidebar overlaps the image. Let's make the image responsive as well; find the img CSS rule and change it as shown. This makes the image never bigger than 540px, and it will scale up and down.

001 .img { 002 003 width:100%; 004 005 max-width:540px; 006 007 height: auto; 008 009 float:left; 010 011 margin: 0 10px 10px 0; 012 013 }

Create a tablet layout

Save and test the design - you will see how the text automatically runs around the image until the width

Mobile menus

Make sure you give special attention to the menu in a mobile device. No-one likes trying to click on very small links and without the menu no-one can access your site

of the column gets too small. It's when that happens that the image scales properly. Obviously as the design gets too small the columns do not really work, so let's create a media query in the CSS. Add this to the bottom of the CSS:

001 @media screen and (max-width: 768px) {
002
003 }

Moving the sidebar

This media query is going to detect when the width is 768 pixels wide or less, and we will adjust the design for a portrait tablet. Inside the query lets update

the sidebar so that it jumps below the main content area and has a wider value than it currently does. Add the code as shown below, which overrides the width on the first sidebar rule.

```
001 .sidebar{
002
003 margin: 0 0 20px 1%;
004
005 clear:both;
006
007 width:98%;
008
009 }.
```

Fix the main section

If you test the design now you will see that the sidebar works fine; it jumps down and fills the width of the browser. The text in the single column however, is only 60% of the browser – but this is easy to fix. Again inside the media query add this code, which ensures the design uses the full width of the browser.

```
001 #main {
002
003 clear:both;
004
005 width:100%;
006
007 }
```

Reset the margins

A small clean up is required here before continuing. The margins are set for the design at desktop level, so let's remove them in the smaller tablet size. Again inside the media query add the following code, which will just reset the margins for the text area. Save this and give it a test in the browser.

```
001 #main .textArea {
002
003 margin:0;
004
005 }
```

Detecting mobile phones

The design scales really well, but as you get down to phone size notice how the menu is the area that struggles; it's quite small for fingers on a mobile, as is the text size to read. Add another media query below the first that will detect when the screen starts to get smaller again.

```
001 @media screen and (max-width:
480px) {
002
003 }
```

Larger text

When using a mobile phone, the text for desktop browsing tends to be quite small on the handset. We are going to increase our body size up to 120%. The good news is that everything will be proportionally bumpedup because we have used flexible em sizes instead of pixels. Add the code shown below into the media query from the previous step.

```
001 body{
002
003 font-size: 120%;
004
005 }
```

Extend the sidebar

If you check the design in the browser, you will see that there is some margin space around the sidebar. We don't need this on mobile as we can take advantage of the full width of the browser in the smaller screen estate. Add the following code into the media query to change the size of the sidebar box.

```
001 .sidebar{
002
```

```
003 margin: 0;

004

005

006 width:100%;

007

008 }
```

Change the menu layout

To make the menu easier to click for a mobile device, it's usually a good idea to add the menu as a regular list down the page. To switch it back we just need to override the inline-block setting for the display, so instead we'll change it to block. Add the code shown below to the media query.

```
001 #menu li {
002
003 display:block;
004
005 }
```

Needs to be a button

The buttons are now in a regular list giving more space to them, but they do not look like buttons. Adding the code shown to the menu li CSS rule will add a border line to the bottom of each button and therefore add some definition of the area that's clickable for each of the buttons.

```
001 border-bottom-color:#FFF;
002
003 border-bottom-style:solid;
004
005 border-bottom-width:1px;
```

Still needs work

The buttons definitely look much better now as the dividing lines have defined each area making it a button. The text still looks a little odd on the buttons and that is because the text is aligned to the left. Let's centre the text on the buttons, giving the 'menu li' more impact on the screen.

001 text-align:center;

Finishing touches

The last refinement we need to make for the buttons list items is to give them a little more space for each of the buttons which can be achieved simply by adding a little padding to the menu li CSS rule. Adding the padding will help fingers to press each button easier on the smaller screen.

001 padding:5px;

Full width

In order to make the buttons take full advantage of the width of the display, as with the other areas of the site's design, we need to remove any padding and margins from the outer container. In this case it happens

to be the unordered list, so add the code shown below to the media query.

```
001 #menu ul {
002
003 padding: 0;
004
005 margin: 0 0 20px 0;
006
007 }
```

Save and test

Now that we've added all of the code to the CSS, save the file and open the HTML page in the browser again. We now have a fully responsive design that scales to differing widths, but has break points (the media queries) that allow the design to reflow as the width of the device it is viewed on shrinks.

Analytics to the rescue

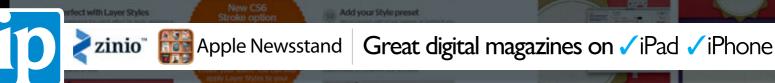
If you use any form of analytics you will be able to see what devices and screen sizes are targeting your site. Aim your responsive designs at these resolutions first.



Flowing text around images

You will have noticed from the design of the webpage that we are flowing text around the image in the design. This has been done specifically to show that text and image combinations can work $together\ within\ a\ responsive\ design.\ The$ image was floated to the left in order to make the text flow around the image. As the column reduces down in percentages when either the browser is resized or navigated to on smaller devices, then the text becomes squashed in. It's not ideal to have the text too thin at the edge of the image so look at your break points in the media queries and try and find a good fit for the image. Of course, there's nothing to say you need to make your text flow around an image at all.

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web workshop

Digital first for Du Jour Magazine

inspiration www.dujour.com



arlier this year, Jason Binn decided to create a new luxury, lifestyle and fashion website to showcase DuJour magazine (www.dujour. com). To do this, he combined magazine design quality, with an adaptive web

publishing model.

To accomplish this feat, Binn approached Code and Theory to develop a digital experience that could function flawlessly on

desktops and tablets alike, while showcasing ongoing editorial updates and the full run of current issues.

Working side-by-side they embarked on designing a full digital experience on the web as the first print issue of DuJour was being created. To do this well, simplicity was key. The online magazine exists as one long scrolling page with the relevant content loaded at the appropriate time.

The visual web

Visual content is placed at the forefront of this online magazine, to to the print edition of the magazine come as a design medium, with rich magazine design becoming more

easily created for the web.

INSPIRATION

Unified publishing

Rather than creating separate experiences for the print and digital magazine, iPad and website, Code and Theory developed a single-view site that houses editorial, advertising and photo galleries. To ensure navigating the site was a seamless experience. Code and Theory designed an infinite scroll format that allowed for undisrupted exploration and keeps users on the same single webpage. Users can browse through photo stories, dive deep into editorial content or just scroll through highlighted stories one after another. Each individual piece of content is shareable to a variety of social media through deep links.

SIGN UP / LOG IN NOW **EXCLUSIVE VIDEOS:** NICOLE RICHIE IS PRIVATE RICHIE NICOLE RICHIE SOLDIERS ON THE BEST OF BACKSTAGE BEAUTY: NEW YORK Content

Hidden menu

The menu is located off on the left-hand side of the page. Clicking the yellow button causes the content to slide on from the left to reveal magazine information

New content is brought into the digital experience daily, keeping the online magazine fresh at a pace not possible in print.

Print to screen

The homepage of the magazine strongly represents the cover of the print magazine, with the top stories available to jump to.

Easy reading The goal of the

site's design is for reading it to be as easy and clear as reading the print version of the magazine.

Scroll for more

The user can just scroll down on the site and this will reveal each page of the magazine in turn: allowing a simple navigation metaphor to work online.

Sliding tabs

The table of contents is located on the right-hand side of the page, Clicking the tab causes this to slide onto the page with a list of thumbnails for each magazine double paged spread. Content can be clicked on to jump to that section.

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<comment> What our experts think

One page wonder

"The print emulation of this website's design is created to be as easy-to-read as possible, so there is really only one way to read and that is to scroll down through the content, like you would read through a magazine. Being a digital version, there is a handy inclusion of a contents page that can enable the reader to jump to any spread of pages."

TECHNIQUE Sliding side panel

Create the panel

Create a new HTML page, and in the body section add the div tags as shown below. This is the panel that will slide in from the side and the switch that will be pressed to make the panel slide in and out from the right-hand edge. The switch has a less-than symbol displayed as an arrow, but you could use an image icon.

Mark Shufflebottom

```
001 <div id="panel">Panel</div>
002 <div id="switch">&lt;</div>
```

Style the document

Move up to the head section of the document and add the link to jQuery and the style tag. Add the CSS rule for the body and html that sets the margin and padding to O, with the height of the document set to 100% which enables the panel to also be 100%. The overflow is set to hidden to avoid having horizontal scroll bars.

```
001 <script src="http://code.jquery.
com/jquery-latest.min.js"></script>
002 <style type="text/css">
003 body, html {
004 margin: 0; padding: 0;
   height: 100%; overflow: hidden;
005 }
```

Style the document (2)

Continue styling the page by making the panel a mid grey colour, it will be the full height of the browser and 400px wide. The position will be off the screen to the right. The switch that controls the sliding panel is made to have a yellow background and also positioned to the right, but halfway down the document.

```
001 #panel {
002 background-color: #999; width:
400px;
003 height: 100%; position:absolute;
004 top: 0; right: -400px;
005 }
006 #switch {
007 background-color: #FF0; position:
absolute;
008 top: 50%; right: 0;
009 cursor: pointer;
010 }
```

Add the jQuery

Still in the head section, add the script tag and the remaining jQuery code - this adds a variable that tells us whether the side panel is on the screen or not. The document-ready function allows jQuery to add a click function to the switch when it loads. If the on-screen variable is true then the panel is slid off to the right.

```
001 <script>
002 var onScreen = false;
003 $(document).ready(function() {
004 $("#switch").click(function() {
005    if (onScreen){
006        $("#panel").
    animate({'right':'-400'},
    'easeOutSine');
007        $('#switch').text('<');
008         onScreen = false;
009    }</pre>
```

Add to your CSS

If the panel is not on the screen it is slid on, using this code. Notice that the text in the switch div tag is changed to a greater-than symbol (>). This shows that the switch now controls the side panel to slide back out. Save this and test it in the browser to see the sliding side panel on the right of the screen.

```
001 else {
002    $("#panel").
animate({'right':'0'}, 'easeOutSine');
003    $('#switch').text('>');
004    onScreen = true;
005    }
006    });
007 });
```



TECHNIQUE

Recreating the logo

The online magazine uses a classic title-based logo, often seen in print, and here we show you how to leverage the power of Illustrator to recreate the logo by manipulating the letter forms.

Add the text

Open Adobe Illustrator or a similar tool and use the Text tool to add the title as shown. We've used Bodoni as the typeface and changed the 'Jour' part to bold, so there is a slight difference in the emphasis.



Convert to paths

Select the text, and from the type menu choose Create Outlines. The text is not editable as text now but editable as a vector shape. Switch to the direct selection tool, which is the white pointer tool, ready to manipulate the text.



Manipulate the letter

Click and drag around the bottomhalf of the letter J. Now click and move this down and to the right to create the letter as shown in the screenshot. You can also move the letter closer to the others after you have finished manipulating it.



web workshop 77

web workshop

Master retro looks with Photoshop

inspiration www.castirondesign.com



etro styles have gripped the digital design world, dominating other trends across the discipline. In previous issues of Web Designer we've looked at the reasons behind this trend, but here we're

showing you how to master some of the most useful Photoshop tools to produce your own stunning styles.

We'll be exploring how to create digital textures to replicate real-world examples using the Photoshop Pattern Fill layer style. We'll also reveal how you can create grain effects using Photoshop brushes and blending modes, all inspired by the designs at www.castirondesign.com. This is a

great example of not just the application of effects, but also the use of vintage typography to produce a recognisably old-school look.

We'll also look at ways you can use Photoshop Actions, which we have treated you to a selection

of on our resource disc. Enjoy!

Retro looks

Type, bitmap textures to give this site the visual outcome is something that offers a

Branding The design for this site

was inspired by the company's namesake, skillet lasts a lifetime, a metaphor for the longevity of their customer service.

Texture

Subtle texture was incorporated in most of the design components, using a variety of scanned-in materials to give the site a more tangible finish.

Apply bitmap The textures in the website were bitmapped to create a more organic

looks that maintained a

small file size.



The Loft Cinema.

cookin' up

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<comment> What our

A website to last a lifetime

"The design for our site was inspired by our company's namesake, the cast iron skillet. A skillet lasts a lifetime, and each one has a sense of history and unique character. Subtle texture was incorporated in most of the design components using a variety of scanned-in materials, which were then bitmapped to create organic texture that maintained a small file size. The cast iron skillet had its heyday in a time when products were simple and efficient, yet advertisements were wordy and hyperbolic. We used a type-heavy design to reflect that time period's voice."

Jonathan J Black, Cast Iron Design Company

INSPIRATION

Retro showcase at line25.com

Looking for inspiring examples online, for your retro web design projects? Look no further than line25.com. This site describes itself as a 'drawing board of creative web design' and its blog on 30 inspiring retro-style websites is a real delicacy. Our favourites presented include our very own www.castirondesign.com, as well as bitfoundry.ca and the wonderful thislandishovland.com.







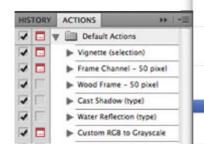
RESOURCES

Using retro Actions

Photoshop Actions are an extremely useful asset to have when creating vintage looks in your designs. These can be applied to all web elements – in particular, photographic images.

You can activate the Actions panel from the Window drop-down menu. From this panel select the fly-out options, choosing Load Action to add those supplied in the Retro Photo Actions pack to your presets. Just click

the Play button to automate the effects. You can find tons of useful actions also online, available from content providers. www.deviantart.com is a real hotspot for this kind of thing. These work out cheaper than most plug-ins.



Delete Play

Start Recording Record Again... Insert Menu Item... Insert Stop... Insert Path

Action Options... Playback Options...

Clear All Actions Reset Actions Load Actions...

Replace Actions...
Save Actions...

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TECHNIQUE

Retro textured web header

New document

Open Photoshop and select File>New. Set Width at 1px, Height at 3px. Zoom in to your layer at 3,200% and select the Rectangle Marquee tool. Make a selection at the top of your layer covering 1px (a third) of your layer. Fill this with black (Shift+F5).

Save Pattern preset

Deactivate your selection (Cmd/Ctrl+D) then select Edit>Define Pattern. Name this pattern 'Retro texture horizontal'. Select Image>Image Rotation>90 degrees CCW. Once more, select Edit>Define Pattern, saving as 'Retro texture vertical'. Now you have effectively created the building blocks for a retro texture in Photoshop, applicable from your Layer Style options.

03 Apply Pattern preset

Select File>New, setting Width at 1,536px, Height at 2,048px. Add a #B6AC95 colour to your background. Draw out your header backdrop using the Rectangle shape tool. We've used a #D1C4AA colour. Now activate the Layer Style options (fx) from the foot of the Layers panel, and Pattern Overlay.

Add noise texture

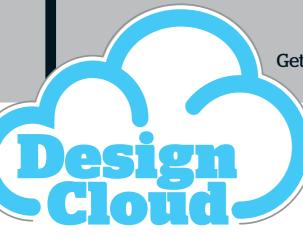
We've applied the Retro texture vertical pattern at 8% Opacity. Next, create a white web header shape and apply Filter> Noise>Add Noise. Set your Amount between 25% and 30%, activating Uniform and Monochromatic. Set the layer blending mode to Multiply, with Opacity at 25-30%.

Add a scatter brush

Create a new layer, blending mode set to Dissolve, Opacity 1% and Fill 10%. Select the Brush tool. Set Brush Size at 2,500px and Hardness at 0%. Press F5 and activate the Brush Tip Shape options. Set Spacing at 1,000%. Deactivate all other option sets. Click your brush once on your new layer.

Final layer styles

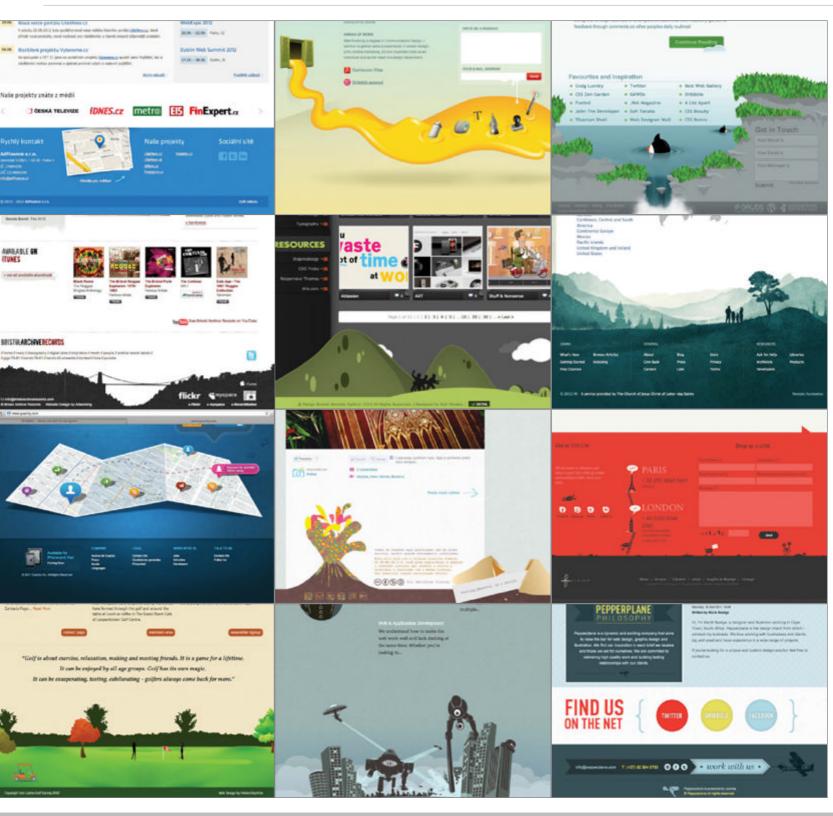
Duplicate, invert (Cmd/Ctrl+I), resize and reposition your duplicate layer. You can now merge these two layers and edit the strength of the effect through layer opacity values. Finally, add a subtle Drop Shadow layer style to your header shape to create the illusion of 3D; set Opacity at 20%, Size 20px.



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Amazing creative footersAn unsung hero of every great website, the footer might not be an obvious space for creative design, but here are 24 ways in which it can be done well...

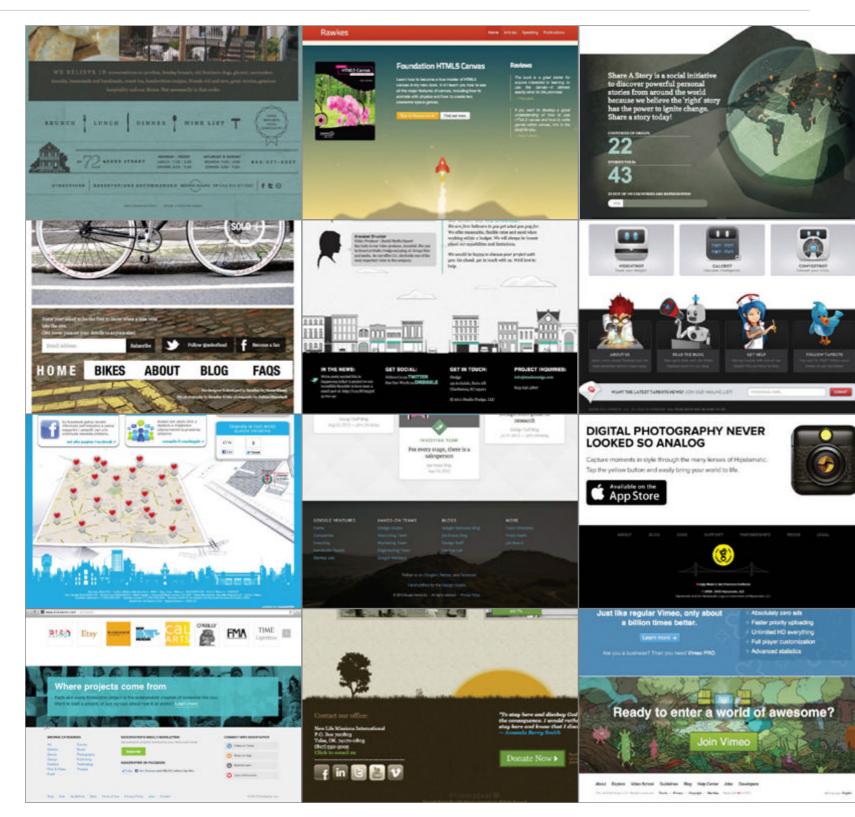


<design cloud>

Amazing creative footers

Email us 🔅 webdesigner@imagine-publishing.co.uk

O1	02	О3	Left-hand page		13	14	15	Right-hand page								
04	05	06	1. adfinance.cz 2. bienemaya.com	7. guachy.com 8. iemai.com.br/blog	16	17	18	13. www.poogansporch.com 14. rawkes.com	19. welovemilano.barclays.it 20. www.googleventures.com							
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Build a JavaScript app using Deferred Objects

Discover how to implement the function in a practical project Page 92

Make a web app with Groovy and Grails part 2

Add authentication and security roles to the web app created in part 1 **Page 88**

Tune u vour website

Debug performance problems with Chrome's JavaScript developer tools **Page 84**





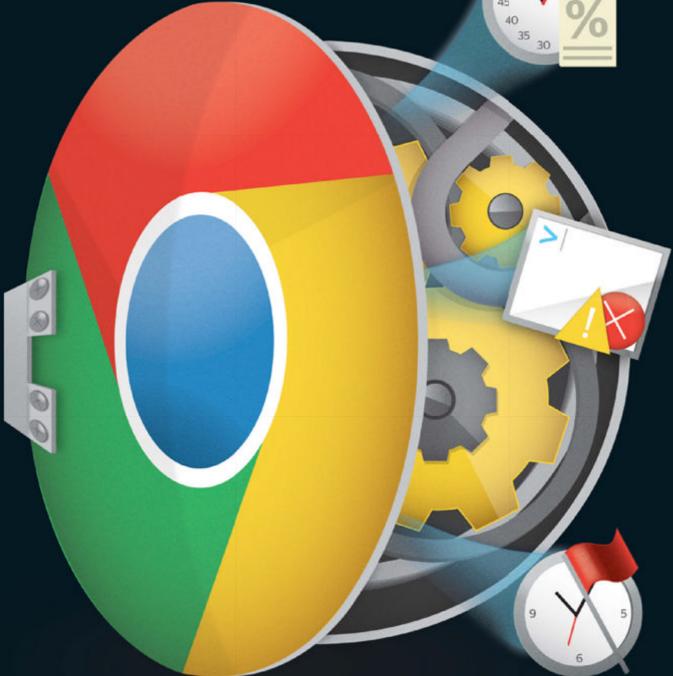




40

TUNE UP YOUR WEBSITE

Debugging performance problems with Chrome's JavaScript developer tools





avaScript development has come a long way in recent years, and with that progress has come a new set of challenges and difficulties when it comes to application performance.

In the past, you might have added some jQuery effects to your page to hide or reveal text or buttons, loaded in some content with AJAX, or appended new elements to the DOM. But this was more or less always done in only a few places on the page, and only a few times for a given pageview. If you made a mistake that created dozens of objects in the memory and never cleaned them up, it usually wouldn't matter since the user would soon navigate to another part of your site,

and you'd get a clean slate to start again. Likewise, if you ever encountered the 'a script on this page has become unresponsive' error, it was almost always because of a simple coding error resulting in an infinite loop.

With the rapid growth of the single-page application style of site, however, as well as widespread adoption of so-called MV* JavaScript frameworks such as Backbone.js, Ember.js, and AngularJS, these assumptions no longer hold true. You might need to execute hundreds or thousands of operations to render out all the elements of a complex application, which might well run into the browser's execution limit and cause it to halt your script. In addition, the user might interact with your page for several minutes or several hours without refreshing or navigating away from it, so it can be easy to accidentally consume an ever-increasing amount of memory.

These new challenges can be daunting, especially for new developers. Fortunately, there are some very good browser-based profiling tools for tracking down these problems, and some simple techniques we can use for resolving them.

Chances are you're already familiar with the excellent set of developer tools available in Google's Chrome browser. However, it's more than likely that you've spent most of your time using the inspector in the Elements, Network, Console, and perhaps Resources tabs.

The performance debugging tools we'll be looking at in this article live in the Timeline and Profiles tabs.

MEMORY TIMELINE The Timeline tab allov chart of a page's mem

The Timeline tab allows you to map a chart of a page's memory use over time.
This is a great way to begin your

investigation into potentially sluggish performance: if your app is leaking memory like a sieve, it will become quickly apparent.

To use the Timeline, open the Web Inspector (Tools>Developer Tools from the Chrome menu) and select the Timeline tab. Select Memory from the left-hand menu. At the bottom of the developer tools panel, there's a solid circle icon (Record) which is used to begin recording the timeline. Click this, then

| Comparison | Com

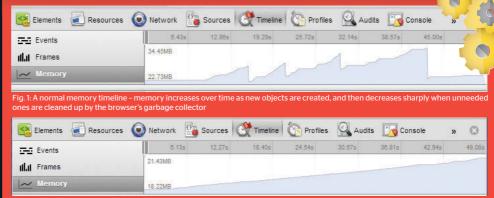


Fig. 2: This memory timeline clearly indicates something is going wrong - none of the objects being created can be garbage collected, so memory use will continue to climb indefinitely

interact with your page for a few seconds and you'll see the timeline begin to appear. Under normal circumstances (assuming your app isn't leaking memory), you'll see the amount of memory used increase and decrease over time, generally returning to a baseline level. However, if there's a problem, you might see memory use continue to increase indefinitely and exponentially.

Figure 1 shows an example timeline taken from a popular music streaming site, which is a good example of a big, complex, single-page JavaScript application. Notice that memory use increases over time, and then decreases suddenly every once in awhile. This is the result of JavaScript's garbage collector regularly freeing up any bits of memory used by objects that are no longer needed.

How does the garbage collector know that an object can be removed from memory? To be frank, the

details are beyond the scope of this article, but in short, if an object can still be accessed by a reference to it, it won't be garbage collected. For example, if you select a DOM node with jQuery and assign it to a variable, but later assign the value null to that variable, the jQuery object is essentially 'orphaned' and can be cleaned up (assuming you haven't set other references pointing to it).





Figure 2, for example, shows what happens when the Timeline is run with a page designed to consume more memory each time a button is clicked.

This is exactly the kind of memory timeline you'd rather not see for your applications. But now that you know you've got memory leaks, how do you go about locating them so you can resolve them? Chrome's web developer tools have a few more features that will help us narrow our search.

% b

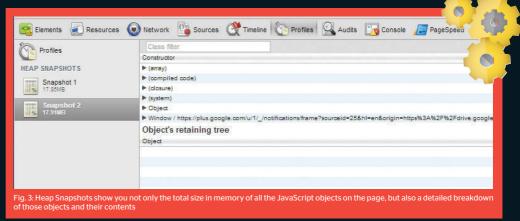
HEAP SNAPSHOTS

The next area of the web inspector we'll be looking at is the Profiles tab. This actually consists of three separate tools

grouped together because they behave similarly. Of the three, we'll concern ourselves primarily with the first and last: CPU Profiles and Heap Snapshots.

Heap Snapshots are particularly useful for tracking down memory leaks, so let's start there. When you select Take Heap Snapshot from the Profiles tab and click Start, Chrome will take a snapshot of all the objects and DOM nodes that currently reside in the memory for the current page.

Once the Snapshot is complete, you can select it from the left panel and explore the list of all the



objects that were present at the time of the snapshot. Figure 3 shows one example of a Heap Snapshot.

Since most of the objects that JavaScript has in memory at any given time are native to the browser, and not related to your code, these snapshots can be very difficult to navigate. However, the real benefit comes when you compare two snapshots. In the

objects have changed between your selected snapshot and another one, as Figure 6 helpfully illustrates for us.

Then it's merely a simple matter of ensuring that those objects are discarded when they're no longer needed, usually by setting the variables that refer to them to null.

44 HEAP SNAPSHOTS ARE PARTICULARLY USEFUL FOR TRACKING DOWN MEMORY LEAKS 12

figure above, you can see that the two snapshots are almost exactly the same size. This would correspond to a flat line in the memory Timeline we saw earlier. If, however, you took snapshots after the amount of memory used by the page had grown significantly, the snapshots would be noticeably different as well.

Try sorting the columns by size, and see if any objects or arrays appear near the top of the list in the later snapshot that were absent or much lower in the earlier snapshot. Investigating those, you'll often find familiar object structures, as they will have been created by your code. This can frequently provide a great insight into which of the objects you're creating are chewing up all that memory.

Chrome also provides some more sophisticated ways of comparing Heap Snaphsots. At the very bottom of the web

inspector panel when you're viewing a snapshot, there are two

menus, shown in Figure 5. If, instead of All objects, you select Objects allocated between snapshots 1 and 2, you'll be able to see new objects that might be contributing to the increase in memory usage. Even more useful, if you select Comparison instead of Summary, you'll be able to see how



CPU PROFILES

CPU Profiles allow you to record your page's JavaScript execution over its lifespan. It also provides a breakdown of

where the browser has spent the majority of its time. This information can be invaluable when you need to track down code that is inefficient. For example, if you happen to discover that your page is spending 60 per cent of its JavaScript execution time inside a short function, you've got a good place to start your optimisation efforts.

Collecting a CPU Profile is much the same as taking a Heap Snapshot: in the Profiles tab, select Collect JavaScript CPU Profile, and click Start. You'll see the profile recording in the left-hand panel. Once you've interacted with the problematic parts of your application, you can click Stop, then select the profile and inspect it.

The Self column gives you the amount of time spent inside each function, while the Total column adds in time spent in functions called by that function. You can expand each function to see a trace of where it was called from, and also click on the filename to see the function highlighted in the source code .

Figure 4 shows how a bit of digging can reveal where a problem lies. At first glance, most of the execution time seems to take place inside of jQuery, which isn't much use to us. However, traversing back







up through the trace, we find the place in our code where all these expensive jQuery calls are originating: line 3 of main.js.

USING TIMERS TO WORK AROUND EXECUTION LIMITS

Most often, you'll be delving into these browser tools to try to ameliorate an application's sluggish performance. But sometimes you're dealing with a more serious issue: the browser locks up completely while trying to perform some complex operation, and alerts that a script on the page has become unresponsive.

Some browsers will alert this warning after a given number of script instructions have been executed, while others allow the script to run for a set number of seconds, but the core problem is the same: your script is trying to do too much in a single go.

Sometimes you'll be able to make your code more efficient, requiring fewer operations to reach the same result. However, this won't always be possible.

The ideal solution to this problem is to use the Web Workers API introduced in HTML5, which allows you to delegate certain operations to background processes that won't lock up execution of your script.

However, web workers come with two significant limitations: they're not supported in Internet Explorer (surprise surprise) below version 10 (which has yet to be released), or in the default Android browser (though they are supported in Chrome or Firefox for Android). What's more, the background jobs have to be self-contained JavaScript files, and they run in a sandbox without any access to the rest of your scripts. That means no jQuery, and none of your Backbone models or views.

If you're able to isolate some pure JavaScript heavy lifting that can easily be isolated from the rest of your code, and you're happy with the level of browser support afforded by web workers, they're a great solution. That said, a discussion of the Web Workers API is beyond the scope of this article. If you're interested in learning more about the API, the Mozilla Developer Network has an excellent article covering all the basics at developer.mozilla.org/en-US/docs/DOM/Using_web_workers.

However, if those conditions don't apply to you, there's still a way out. Using JavaScript's built-in timer functions, you can split out your one giant execution thread into a series of callback functions that will execute over a short span of time, giving the browser the illusion that your script has completed.

For example, let's say you have a large array of Backbone views that you want to render, and rendering each of them requires a fair amount of processing: enough that your loop is causing the script to lock up and the browser to complain. Your code looks like this:

001	for (var i=0; i < myViews.length; i++) {
002	
003	<pre>var view = myViews[i];</pre>
004	
005	view.render();
006	
007	}
008	

Instead, you can move your renders into timers:

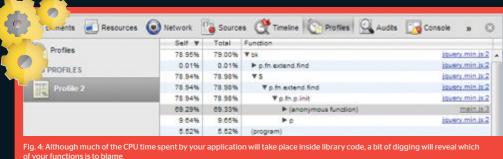
001	<pre>function renderViews(views) {</pre>
002	
003	<pre>setTimeout(function() {</pre>
004	
005	<pre>var view = views.shift();</pre>
006	
007	<pre>view.render();</pre>
800	if (views.length > 0) {
009	
010	setTimeout(arguments.
call	ee, 20);
011	
012	}
013	
014	}, 20);
015	
016	}
017	
018	renderViews(myViews);

The timer renders the view, then sets up another timer to render the next view 20 milliseconds later. To the user, the views will appear to be drawn instantly, and the browser will happily run your script for as long as it takes, since each render takes place in a callback function, rather than taking place in the original operation.

You'll need to adapt this idea a little for your code, but the idea should be clear: rather than performing your computationally intensive processes directly inside the loop, spin them out into timer callbacks.

GET UP TO SPEED

Debugging and resolving JavaScript performance problems can be tricky – certainly much trickier than debugging coding errors. But with the help of the strong diagnostic tools that are present in modern browsers, and in Google Chrome specifically, it becomes a little bit easier to locate the source of a problem and begin to think about how to resolve it. Combine this with a little bit of know-how about improving performance, and your application should be speeding along in no time.

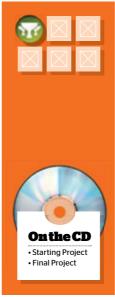


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Buildawebapp with Groovy & Grails part 2

Add authentication and security roles to your Grails application using a helpful plug-in

tools | tech | trends Grails, Groovy/Grails Tool Suite experts Matt Gifford



hanks to the command-line interface and tooling, a good portion of creating web apps with Grails is automated. However, all URLs and controller actions are openly accessible to visitors. When developing systems that allow for content management, it's important

to add security features to stop unwanted access.

In this tutorial we will use authentication rules and processes to add security restrictions to editable content using the Spring Security Core plug-in, which will help us to define user objects, assign roles and handle database input and encoding.

We will also create a new layout template to add a styled user interface to our default homepage, and use tag library features to read content from calling pages.

Thanks to Grails' infrastructure, we can keep our code modular and reusable as possible, which will assist in code maintenance and ease workflow development.

01 Install security plug-in

Let's start by installing the Spring Security Core plug-in into our existing application. Open the command prompt interface by right-clicking on the TaskManager project folder and selecting Grails Tools>Open Grails Command Prompt. Enter the following command to install the plug-in:

001 grails> install-plugin spring-security-core

O2 Create classes

Following a successful installation of the plug-in, you will be notified in the command output to run a new command, which will generate the minimum required domain classes to use with the security authentication processes. Enter the following command into the prompt to create two classes, User and Role, which will be generated for you.

001 grails> s2-quickstart org.example.taskmanager User Role

03 Check config

The s2-quickstart command has created the domain classes, controllers and GSP view pages for you to handle the user interface and layout for the login form page. It has also added some extra parameters to the conf/Config.groovy file to configure the paths to the domain classes. Open up the file and at the bottom you should see code similar to the following:

Added by the Spring Security Core plug-in:

001 grails.plugins.springsecurity.userLookup.userDomainClassName =
'org.example.taskmanager.User'
002 grails.plugins.springsecurity.userLookup.
authorityJoinClassName = 'org.example.taskmanager.UserRole'
003 grails.plugins.springsecurity.authority.className = 'org.

Alter encryption

example.taskmanager.Role

The Spring Security plug-in manages a lot of the daunting tasks of the authentication process for you, including the automatic encryption of user passwords before saving them into the database. By default this uses the

SHA-256 algorithm, but we can change this to a number of alternatives. Add the following line at the bottom of the Config.groovy file to use bcrypt.

001 grails.plugins.springsecurity.password.algorithm = 'bcrypt'

BootStrap users

Open conf/BootStrap.groovy within the IDE. Here, we will set a default user with the correct administrative roles so that we can log into the application's restricted pages. First, we need to import the new domain classes we created using the Spring Security plug-in. Add the following imports to the top of the file before the opening class definition.

001 import org.example.taskmanager.Task
002 import org.example.taskmanager.User
003 import org.example.taskmanager.Role
004 import org.example.taskmanager.UserRole

Define Role

Now we can create our default roles - one role for an administrator, and the other role for a standard user. We will also create a dummy user account for testing purposes and grant that user with administrative rights by assigning the correct admin role to them. Place the following code within the init definition.

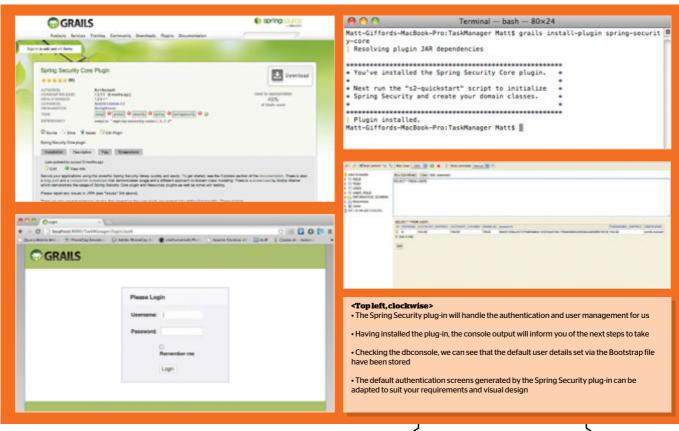
001 if (!User.count()) {
002 def adminRole = new Role(authority: 'ROLE_ADMIN').
save(failOnError: true)
003 def testUser = new User(username: 'coldfumonkeh',
enabled: true, password: 'mypassword')
004 testUser.save(failOnError: true)
005 UserRole.create testUser, adminRole, true
006 }

Annotation class

With the user defined, we can now start to apply the access restrictions. Open TaskController.groovy in the IDE. First, we need to import the required classes and references from the Spring Security



Build a web app with Groovy and Grails part 2



framework. Add the following import definition before the opening class definition within the task controller file.

001 import grails.plugins.springsecurity.Secured

Secure everything

We want to restrict access to all of the views offered through the TaskController. We can do this on a per-definition basis, setting the security restriction for each individual action, or by setting one rule to cover the entire controller, which we'll do in this case. Add the following code before the opening class definition.

001 @Secured(['ROLE_ADMIN'])
002 class TaskController {

Run application

Let's run the application to generate the new user access definitions and roles set in the Bootstrap.groovy file. Open the Grails Command Prompt window and enter the required command to run the application. Once complete, the new user details should be stored in the database for us.

001 grails> run-app

Check database

Open up the dbconsole tool in the browser by visiting **localhost:8090/ TaskManager/dbconsole** and login with the database security credentials as

Documentation

There are a lot of features and functions in Grails to help create dynamic, scalable applications. The online documentation is a great resource to reference.

defined in the conf/DataSource.groovy file. Run a select statement against the USER, ROLE and USER_ROLES tables to ensure the data has been successfully written to them.

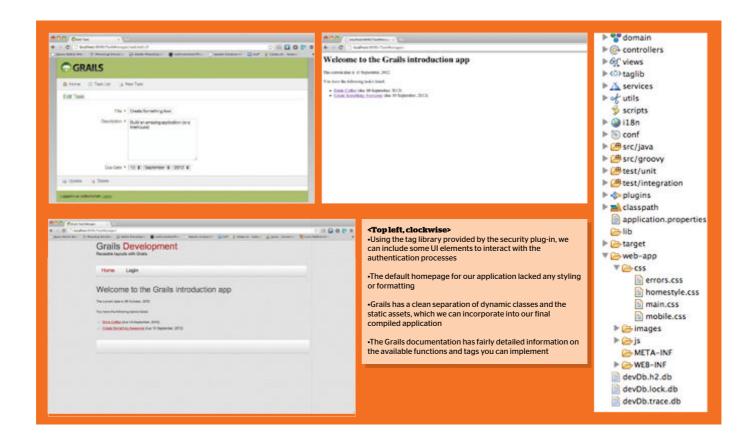
Attempting access

Browse to the root of the site (localhost:8090:TaskManager). This will display our home screen, complete with the task list. If we click on a task item link to edit its details, we should now be presented with a login screen, complete with remember me functionality. Very handily, the user interface for the login pages has also been created for us by the plug-in, negating the need for us to do so.

Logging out

At the moment we don't have a clear way of logging an authenticated user out of our application. The Spring Security plug-in provides us with a number of GSP tags that we can use within our views, which use the sec namespace. Open Views>Layouts>main.gsp and add the following within the footer div element.

Build a web app with Groovy and Grails part 2



- 001 <sec:ifLoggedIn>
 002 Logged in as <sec:username />
 003 <g:link controller="logout" action="index">Logout</g:link>
 004 </sec:ifLoggedIn>
 - Revised homepage

Open Views>Home>index.gsp. At the moment, this page does not contain any core HTML structure. To use this content with our forthcoming layout template, let's update this to include the following code. Place the existing content in this file between the body tags. By creating this definition, we will be able to reference elements for use within the layout template.

Reference assets

To apply a new stylesheet to our layout, we can call a dynamic reference to the homelayout.css file. Any static files, including images, are kept within the web app directory of the project. Add the following to the head of the view page. This will call the correct resource from the CSS directory.

001 <link rel="stylesheet" href="\${resource(dir: 'css', file:
'homestyle.css')}" type="text/css">

Layout template

Let's create a new layout for use with our default home page. Create a new file called 'homelayout.gsp' within the Views>Layouts directory. This will hold the main HTML template to render our view page, with the exception of the actual body content, which will come from the view itself. Full code for this layout is included in the project files.

```
001 <div id="main">
002
      <header>
003
        <div id="logo">
          <div id="logo_text">
004
005
            <h1><a href="${createLink(uri: '/')}">Grails<span
class="logo_colour"> Development</span></a></h1>
006
            <h2>Reusable layouts with Grails.</h2>
007
          </div>
008
        </div>
009
010
          011
012
          013
        </nav>
014
      </header>
```

16 Navigation

We now need to add the navigation elements into the template to handle the display of the links to log in and log out for users. Once again, we'll



Build a web app with Groovy and Grails part 2

make use of the Spring Security tag library to handle the display of the links based on the user's current authentication. Place this between the nav tag within the homelayout.gsp file.

001
002 Home

003 <sec:ifLoggedIn>
004 <g:link controller="logout" action="index">Logout</g:link>
005 </sec:ifLoggedIn>
006 <sec:ifNotLoggedIn>
007 <g:link controller="login" action="index">Login</g:link>
008 </sec:ifNotLoggedIn>
009

Layout title

When using reusable layouts, we want to be able to use as much of the existing information from the decorated view page as much as possible, which includes the title, if available. We can use the grails layoutTitle tag within the layout file to read this value, or use a default value if one is not present.

001 <title><g:layoutTitle default="Task Manager"/></title>

Layout head

We set the reference to the CSS file for the new layout within the view page. This means we can use individual stylesheets for each page, but we still need the layout to call these into play. For this, we can use yet another Grails tag called layoutHead, which will use any content located within the calling page's head tag.

001 <g:layoutHead />

Getting body content

With the layout template more or less complete, we now need to define the body content to display from the decorated page. Once more, Grails makes this easy with the use of another tag called layoutBody. Place this within the content div block in the layout file. This will display all content from between the calling page's body tags.

Include JavaScript

As we reference and include stylesheets and other assets dynamically, we can do the same when including JavaScript libraries or files into our application. Before the closing body tag in our homelayout.gsp file, add the following code to load the jQuery library directly into the application.

001 <!-- javascript at the bottom for fast page loading -->
002 <g:javascript library="jquery" />
003 <r:layoutResources />

Apply layout

With the layout complete, we now need to ensure our view page uses the new template for rendering. There are a few ways to achieve this, but we'll

use the applyLayout tag. Wrap the content of the view page with this tag, specifying the name of the template to use. All calls to this page will now use the new template.

001 <g:applyLayout name="homelayout">
002
003 </g:applyLayout>

22 Run app

Let's run the application to ensure the new template is called for the home page view. Open the Grails Command Prompt window and enter run-app to compile the files and start the development server. Once complete, navigate to the URL where you should see the revised layout, including links to log in as an authenticated user.

Social Security

There are a number of Grails'
plug-ins built on top of the
Spring Security Core
authentication access plug-in
that give you the ability to
authenticate a user using a
number of popular social
networking applications.

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Defining security access, roles and restrictions within your application

Running the s2-quickstart command, we asked it to create two domain classes for us to represent and manage the User and Role features respectively. The first relates to a new user object whereas the second deals with the specific security authority. The plug-in created a third domain class for us, UserRole, which handles the many-to-many relationship mapping between these two individual classes and stores the relationship into the database for us.

One user can have many roles (or authorities). Similarly, a specific authority can have many users with the same rights and privileges. Although the default properties with the classes deal with login information only, you can also extend the class with your own to enhance the User object, and provide more detailed information such as first name, last name and email address, for example.

For more details on the plug-in, check out the official documentation available here: monkeh.me/zkli7.

Build a JavaScript app with Deferred objects

Learn the usefulness of Deferred objects and how to utilise them in your own development projects

tools | tech | trends jQuery, Handlebars.js, HTML5 **expert** Tim Stone



V b T u a a n

ver the last six years developers have become increasingly reliant on Ajax. This is no bad thing though; it allows us to create responsive interfaces and update data on the fly. This is all made better by jQuery's fantastic jQuery.ajax() method, which eliminates having to worry about browser quirks. Occasionally though,

it would be useful to have even more flexibility.

A Deferred object is a JavaScript object that will give you a returned value at some point in the future (a 'promise'). If you're used to working with jQuery's Ajax method then it's the same as using the .done(), .success(), and .error() callbacks. Deferred objects add to this list with .resolve(), .reject() and .then(). There are others, but these three, and .when(), are what we're using here.

Deferred objects are immensely useful when dealing with APIs or any asynchronous environment. This tutorial will give you an introduction on what they are, how to use them, and help you use them in your own projects.

Today we're going to build The Ultimate Dinosaur Encyclopaedia with a little help from Handlebars.js, a templating engine with a few tricks up its sleeve.

The structure

In the beginning there was HTML, and lo, it was good. So that's where we're going to start, with a barebones HTML page with all our JavaScript libraries included. We've also included HTML5 Boilerplate's CSS files to give us a starting point. The main div's contents will be replaced by the Handlebars templates when they're rendered inside of it.

001 <h1>The Ultimate Dinosaur Encyclopaedia
</h1>
002 <section id="content">
003 </section>
004 <script src="js/libs/jquery.js"></script>
005 <script src="js/libs/handlebars.js"></script>

Building templates

006 <script src="js/dino-loader.js"></script>

Before we get up close and personal with loading content we need to define how to structure the data. For the Encyclopaedia we're going to show the user groups before anything else, and we've divided them into carnivores and herbivores. The {{}} syntax of Handlebars is used to interpolate JavaScript variables in the markup. The dot signifies this, eg this group. Also note the id attribute on script; we'll use this to lock onto it with jQuery later on.

Writing an API

Deferred objects flourish when dealing with Ajax requests. If you've got a back-end that you're dealing with, it's good to wrap it in an API variable that has methods for each action, eg api.getDinosaurs();. As this is a front-end

tutorial we'll just be simulating a back-end response. Create a new file called dino-loader.js, this will house our logic. The full code for this step is located on the resource disc.

Hooking in

After the makeRequest function, we want to add a hook that will load our source for all things that stomp and roar. The dinosaurs, json file can be found on the resource disc which includes a JSON object as might be generated from a server. It includes each dinosaur's name, description, image, and group. We'll write hooks to get each part.

```
001 function getDinosaurs() {
002 if (!dinosaurs) {
003   var url = 'js/dinosaurs.json',
004       request = makeRequest(url);
005   return request;
006 } else { return dinosaurs; }
007 }
008 return { getDinosaurs: getDinosaurs };
```

No more nesting

Now that we've got a list of all our dinosaur objects, we're going to start by displaying each group that they belong to. At the moment, our limited dataset only includes carnivores and herbivores. getGroups will return each unique group in our dataset, but it depends on the presence of our dinosaurs' variable already being populated. We could write it as a nested callback like: \$. when(api.getDinosaurs()).then(function() { \$.when(api.getGroups).} then(function() { /*do stuff */ } }); but as you can see that quickly gets messy! Instead we're going to make getGroups a Deferred object that resolves when we're sure it has the data.

```
001 var getGroups = $.Deferred(function() {
002 var deferred = this;
```



Build a JavaScript app with Deferred objects

Deferring and resolving

In the last step we referred to a function called filter(), which we'll write next. After we've done this, hopefully you'll see how cool and useful Deferred objects are at returning values when they've been completed. In our getGroups method, it may have to make an Ajax request or simply filter some data but we only tell it to resolve when it's complete. You can generally use resolve() when you'd return something.

```
001 function filter()
002 {
003 var groups = [];
004 for (var i = 0; i < dinosaurs.dinosaurs.length; i++) {
005    if (dinosaurs.dinosaurs[i].group) groups.push(dinosaurs.dinosaurs[i].group);
006 }
007 var sortedArray = Array.sort(groups),
008    uniqueGroups = $.unique(sortedArray);
009 deferred.resolve({ groups: uniqueGroups });
010 }</pre>
```

When or then?

Now that we've resolved the Deferred object that is getGroups we can use its resolved value to output the result. By using \$when() and \$then() we ensure that we have groups, while not explicitly having to lock onto any .success() callbacks; nor have we resorted to setTimeout or setInterval. You can think of when() as meaning 'when this has been resolved'.

```
001 $.when(api.getGroups).then(function(groups) {
002 //render outcome
003 });
```

Compiling our template

Now that we have all our dinosaur groups, we can finally output this to the user. We do this by locking onto our Handlebars template with its id and then compile that template. We then replace our content section with the compiled template and pass it the data to use when rendering it. In this case, each group.

```
001 //render outcome
002 var source = $('#index').html(),
003 template = Handlebars.compile(source);
004 $('#content').html(template(groups));
```

Adding click handlers

Now that our template has been rendered into the DOM, we can manipulate it. Because this is a JavaScript app we're going to have to cheat and manually assign click handlers to each link, which then gets each dinosaur that belongs to that group. Thankfully, jQuery makes this an absolute cinch to accomplish.

```
001 $('.link').each(function() {
002  $(this).on('click', groupClickHandler);
003 });
```

The Ultimate Dinosaur Encyclopaedia

Herbivores

Carnivores

<Above>

 A list of the two main categories in our Encyclopaedia. Who knows, one day it might include omnivores too!

Rendering out

We've used the HTML5 custom data attribute to add some metadata to each anchor tag. We're now going to use this to work out which group to get and then render in a similar fashion to what we've done before. We also need to write our Dinosaur Groups template and API hook to get the data, which we'll accomplish next. The full code for this step is located on the resource disc.

Compiling our template (2)

First, our template. It's much like the first time, but now we have an id of group. We're also using the shorthand #array so instead of writing #each dinosaur it's simply #dinosaur for brevity. We're also wrapping the title in a Handlebars if statement so we can potentially reuse it later to list dinosaurs.

Passing arguments

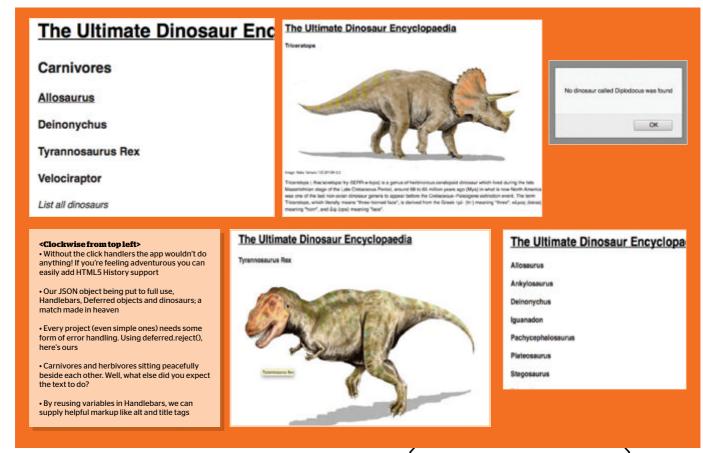
With our template in place we can now think about giving it content. We're going to add another method to our API called getGroup() and we're going to pass it an argument. This is accomplished slightly differently to how our getGroups method worked. We wrap the Deferred object in an outer function that accepts an argument that we can then use in the Deferred object itself. The rest of the code is similar to what we've written above.

Filtering groups

Just as we did with getGroups(), we filter the result and, once this is done, resolve the Deferred object with a list of all dinosaurs that belong to that group. So all carnivores will be listed when the user clicks Carnivores, and likewise for Herbivores.

```
001 function filter() {
002 var species = [];
003 for (var i = 0; i < dinosaurs.dinosaurs.length;</pre>
```

Build a JavaScript app with Deferred objects



```
i++) {
004   if (dinosaurs.dinosaurs[i].group === group)
species.push(dinosaurs.dinosaurs[i]);
005 }
006 deferred.resolve({ dinosaurs: species, group: group});
007 }
```

Applying click handlers

The last thing to do is to write the click handler for dinosaurs, which in turn sets us up for the final leg of The Ultimate Dinosaur Encyclopaedia. Again, we get the name from the HTML5 data-* attribute and, when we have the data from getDinosaur(), use it to render the template. The full code for this step is located on the resource disc.

Remember to return

Now that we've glued all the bits together, you should be able to click on a group and immediately have a list of herbivores or carnivores presented to you - without any hard refresh and no nasty callback within callback! Remember to return all API methods that we want to expose like so within the API variable.

```
001 return {
002 getDinosaurs : getDinosaurs,
003 getDinosaur: getDinosaur,
004 getGroups: getGroups,
```

Every project?

You don't always need to use Deferred objects but when you find yourself with many Ajax callbacks and nesting, chances are they'll help keep your code clean.

```
005 getGroup : getGroup
006 };
```

The dinosaur template

We're going to show data related to the dinosaur that the user clicked. This calls for another template and another API hook. Again, we'll start with the template. The following should look very familiar, but this time we're not looping through anything, just giving it placeholders for the variables we'll pass it. The full code for this step is located on the resource disc.

Looking familiar

You know the drill. Now we add a method to our API that will pass an argument (the dinosaur that was clicked on) and filter the result.

```
001 var getDinosaur = function(dinosaur) {
002 return $.Deferred(function() {
003  var deferred = this;
004  if (!dinosaurs) {
```



Error handling

Once we've found a match in our source – where the name is the same as what the user clicked on – we resolve the Deferred object (getDinosaur()) immediately. We're also going to add our first error handler, so if no dinosaur was found and the deferred object hasn't been resolved we reject the Deferred object by passing it some information that could be displayed to the user. The full code for this step is located on the resource disc.

Adding fail

Now that we've put in our first rejected Deferred object, we may as well make use of it. Within dinosaurClickHandler() we're going to add a fail callback to \$.when(), which will tell the user why it failed with an alerted message.

```
001 $.when(api.getDinosaur(dinosaur)).then(function(dino) {
002 //render template code
003 }).fail(function(message) {
004 alert(message.info);
005 });
```

ALL the dinosaurs

For the grand finale, we're going to list all the dinosaurs in our JSON file. I've added a footer tag to the HTML page with an anchor tag that has an id of "all", the contents of which say List all dinosaurs. We've also added some basic CSS to style anchor tags.

```
001 <footer>
002 <a id="all">List all dinosaurs</a>
003 </footer>
```

Code reuse? Check

We're going to reuse the list-dinosaurs template. Remember we wrapped the Groups h2 in an if statement? That was so we can use it now. With this in place we can get an overview of all the dinosaurs in our source file. \$.when() is handy here because it doesn't matter if api.getDinosaurs() returns a jQuery Ajax object or an array – it treats them the same.

```
001 $('#all').on('click', function() {
002 var source = $('#list-dinosaurs').html(),
003  template = Handlebars.compile(source);
004 $.when(api.getDinosaurs()).then(function(dinos) {
005  $('#content').html(template(dinos));
006  $('.link').each(function() {
007  $(this).on('click', dinosaurClickHandler);
008  });
009 });
010 });
```

And finally...

With that, we've built a functional yet slightly barebones Ajax-reliant JavaScript app. It may not be The Ultimate Dinosaur Encyclopaedia, but it's a good start! With any luck you now have a better understanding of Deferred objects in jQuery, and an example of when it's useful to implement them.

Code library

To Defer or not to Defer?

Here's an overview of what the code should look like, complete with the API hooks and how to use them.

As of jQuery version 1.5, all Ajax requests in jQuery are Deferred objects - so chances are you've already been using them.

```
001 var api = (function() {
002 var dinosaurs;
003 function makeRequest(url) {
004
      var request;
005
      request = $.getJSON(url)
006
       .success(function(response) {
007
         dinosaurs = response;
008
         return response;
009
010
      return request;
```

Resolve a Deferred where, traditionally, you'd return the result. Although not shown here make sure to reject (if necessary) too.

```
011 function getDinosaurs() {
012
      if (!dinosaurs) {
013
         var url = 'js/dinosaurs.json',
014
           request = makeRequest(url);
015
         return request;
     } else { return dinosaurs; }
017 }
018 var getGroups = $.Deferred(function () {
019
      var deferred = this;
020
      if (!dinosaurs) {
021
         $.when(getDinosaurs()).then(function()
022
           filter();
023
         });
024
       } else { filter(); }
025
       function filter() {
026
         var groups = [];
027
         for (var i = 0; i < dinosaurs.
dinosaurs.length; i++) {
028
           if (dinosaurs.dinosaurs[i].group)
029
              groups.push(dinosaurs.dinosaurs[i].
group);
030
031
         var sortedArray = Array.sort(groups),
032
           uniqueGroups = $.unique(sortedArray);
033
         deferred.resolve({ groups: uniqueGroups
034 });
035
036 });
```

By only returning certain functions we make sure that it can only make certain types of requests.

Using \$.when() and \$. then() can fast become habit and has an extremely memorable, semantic syntax.

```
038 getDinosaurs: getDinosaurs,
039 getGroups: getGroups
040 };
• 041 })();
```

042 \$.when(api.getGroups).then(function(groups)
{
043 //work with groups
044 });



Melquiades Vazquez

web www.iklem.com



Current role Senior front-end developer

Education MSc in computer science/ degree in computer

science/degree in advertising and PR

Expertise HTML5, CSS3, responsive design, JavaScript, jQuery,

Flash, Photoshop, Fireworks, WordPress, Drupal,

Clients Adobe, Dell, Totaljobs Group, Young & Rubicam

Twitter @melvc

Born in Madrid, Melquiades Vazquez began his career as a back-end developer building .NET and Java websites. Drawing on his technical knowledge he moved into the world of front-end development in order to greater express his creativity and eye for good design.

In 2009 he took the opportunity to move to London to broaden his development horizons and has spent the last three years working at a number of London's top digital agencies.

Melquiades combines his back-end and front-end skills to create WordPress, Drupal and eCommerce sites, as well as working on a range of online campaigns.

He's interested in recent web trends like responsive design, parallax effects and custom typographies, and likes to be involved in the entire process of creating a website; from the initial concept, through to launch and beyond. He thinks it's important to understand all the steps in the creative process to make sure all of the pieces fit together. He says "knowing what's possible (and what isn't) is an essential part of development, so being involved in the design process as early as possible can help avoid problems further down the line".

He also partners with Cristiano Andrades, creative director of the design studio WEAREBOSSA to bring new concepts to life, offering development consultancy on the latest web technologies.

Melquiades has just launched his new portfolio www.iklem.com, and when he's not cooking up some HTML5 magic, he enjoys cooking Spanish food and prasticing for the Bonzini World Championship.



01 iklem.com



01

Melquiades' recent portfolio is inspired by something both as simple and as difficult as a 50 x 50px grid and utilises a fully responsive layout.

Tech.YR is a Young & Rubicam Group initiative. Smooth jQuery animations and easing effects seamlessly display the site's additional content.

Digital agency site with a minimalist approach based on blocks of different sizes. The bold typography and colour scheme reflect quality.

A WordPress theme that uses responsive design and CSS3 combined with several different backgrounds to add texture and depth of field.

A corporate site with random fullscreen background images related to their service. The site uses a clock animation in HTML5 canvas to switch between languages.

96

Sasha Endoh

web www.sashaendoh.com



Currentrole Freelance web designer

Education Self taught

Expertise WordPress, HTML, CSS, PHP, jQuery, Photoshop,

Illustrator, Dreamweaver, WordPress CMS,

responsive design

Clients Childhood Disability LINK, Serge Doré Selections,

International Coalition of Art Deco Societies

Twitter @SashaEndoh

Sasha Endoh is a WordPress web designer based in Montreal, Quebec, Canada. Raised by talented architects, Sasha saw her creative development start early on. Back then she was inspired by the paintings of Hans Memling and Hieronymus Bosch, and flowing art nouveau lines of Antoni Gaudi's architectural style. Sasha is still drawn to classically inspired aesthetics but prefers a more modern approach. She loves thought-provoking juxtapositions, creative typography, and rich colour schemes.

Even though Sasha built her first website at the age of 16, she had not considered web design as a career path until her mid-20s when she found herself without a job and with no interest in working for anyone other than herself. She had some rudimentary Photoshop skills and HTML knowledge as she dove head-

first into absorbing and perfecting her new craft. Now, after more than five years of working as a freelancer Sasha is a passionate web designer with a deep-rooted appreciation for web standards, elegant code, and functional design.

She is particularly excited about creating WordPress CMS websites that are not only beautiful but also easy to use for both their visitors and owners. She is fascinated by developing designs for responsive websites and finds the extra requirement of making a website look and work great on multiple devices to be an invigorating challenge.

Clearly, when Sasha sets her mind to doing something, she just ups and goes for it. Having challenges to fix along the way only makes the satisfaction of a job well done feel that little bit sweeter.



01 sergedoreselections.com



02 fallinlove2012.com



03 www.fallinlove2012.com/bridal-party



04 www.olsavannah.com



01

Deep accent colours, vintage framing and artisan fonts juxtaposed against white space create a modern look and feel for this wine importer's website.

02

Autumnal wedding website for a couple marrying at a vineyard. Textured elements are reminiscent of rustic materials appropriate to the setting.

03

The bridal party page revealing the autumn-inspired tree design symbolises coming together and the connecting of branches of the family tree. 04

Folk/roots band website inspired by depression-era earth tone colours with sky-blue accents, a vintage font selection, and a photo background. OF

Responsive design offers on-the-go access to those seeking a criminal lawyer. A variation on a corporate colour scheme gives the site a unique yet professional feel.

portfolio 97

www.torontobuskerfest.com



www.dirty-dishes.ca



www.woofstock.ca



theultimatewomensexpo.com

Álvaro Ramos

web www.alvaroramos.com



Current role Network and computer systems analyst

Education HTML, JavaScript, jQuery, PHP, ASP, MySQL, Flash &

Actionscript, CSS, Photoshop, Illustrator, Premiere

Expertise Design, coding, plug-ins, WordPress, SEO, HTML5, CSS, JavaScript

Clients Imagine Canada, Woofstock, Scotiabank Buskerfest,

Epilepsy Toronto

Twitter @AlvaroRamos_com

Álvaro Ramos was born in A Coruña (Spain) in 1978 and first had contact with computers when bought a Commodore 64 as a child. Fortunately, things have changed a little, but thanks to his creativity (and good humour when computers break down), he likes to think he is, somehow, respected in the world of web design.

At 21, he cofounded his first company with a couple of university buddies, where he learned how to value team work and communication with clients. He was also working as an intern in the computers department in support of research of the University of A Coruña - first making coffee, and then building online-based systems to gather and process information for physics, biology or construction engineering researchers. Álvaro has been creating websites for more than ten years and still keeps his sanity

and good humour even after having to deal daily with concepts like 'browser compatibility', 'graphic resolution' or 'user-friendly interfaces'

"I like the expression 'thinking out of the box," he says, but at the same time he states he's never gone into a box to think. Obsolete websites, templates, and non-user friendly contraptions flood the internet nowadays, limiting its real potential. He is determined to end this tyranny of tacky designs and structural nonsense by creating unique, customised and visually appealing websites that are easy to navigate, and where information is simple, organised and, above all, relevant.

An admirer and supporter of the open source concept, he considers that the internet should be a space where freedom of speech and creativity encounter no limits or obstacles.



05 marigoldsandonions.com

A Flash-powered website that presents a fun, colourful and live experience - a true reflection of the event itself, which never ceases to excite or amaze.

Dedicated to a band of sharp-witted ladies who perform a blend of country bluegrass and gospel. The antique feel of the site adds to the ambience.

A website perfect for dogs and their owners. The Flash splash screen uses animation to convey the spirit of hippydom, using a dressed-up dog.

An event takes places in multiple cities of the USA, so the challenge was to find a customised design that could be adaptable for different options.

A website built with Adobe Flash but including a host of CMS integrations. The client wanted a floating and clean design for this boutique catering company.

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Hotbeds of worldwide web design

Hong Kong

See the design sights in the eastern city of lights

Hong Kong is among the top-five most densely populated cities in the world. It's exciting, fast-paced, and the financial hub of Asia. English-speaking digital creatives across a number of multi-disciplinary agencies thrive off and enjoy the energetic life on offer throughout the city.

Hong Kong became a special administrative region under China after the British handed back the colony in 1997. It enjoys a high degree of autonomy and is one of the world's leading international financial centres, characterized by capitalism, consumerism and economic competitiveness.

Despite the Government's effort in propelling the development of Hong Kong as Asia's 'design hub and creative capital', the city has not quite gained a reputation as an area with a vibrant design scene. Picking a career in the creative industry is generally not considered a smart move by traditional Chinese parents, and the high cost of real estate is not helping new creative ventures that need affordable space.

Typical digital projects in Hong Kong like websites, apps and other forms of online marketing are primarily driven by budgets and deadlines. Agencies, whether small or big, have to stay very competitive on price - and speculative work is the norm when working with big brand clients.

Notwithstanding the fierce competition and long working hours, the digital design scene has gained stronger momentum and recognition thanks to the popularity of mobile devices, and Hong Kong is still one of the best places for pursuing a digital creative career in Asia for anyone that speaks English and enjoys a vibrant city life.



BeansBox
www.beansbox.com
BeansBox is a boutique digital agency that designs and builds attractive, easy-to-use and search engine friendly websites. With a focus on Drupal and search marketing, it specialises in creating multilingual, search

specialises in creating multilingual, search engine-optimised websites using a powerful content management back-end for businesses in Hong Kong and abroad.







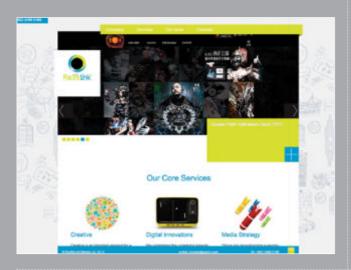


100

trend map

PacificLink Group

As a full-service digital marketing agency, the work of the PacificLink Group is nothing if not diverse, including web-based assets and app development. With clients ranging from Volkswagen to Microsoft and Citi, the agency has constantly grown - opening offices in Shanghai and Taiwan.



pill & pillow
www.pillandpillow.com
Founded by Henry Chu back in
2004, the breadth of work
undertaken by this agency has attracted
some seriously positive attention and
many awards. Working with a diverse
range of media, it's clear that clients who
want to push the creative aspects of their
companies will find a great partner with
pill & pillow.



GreenTomato
www.gtomato.com
As a specialist in the
development of mobile apps
for all the major platforms, this
consultancy's work has reached over
three million users across a range of
market sectors, from travel to
banking. Clients looking to develop
apps to engage with their customers
trust GreenTomato consultancy to
consistently deliver cutting edge
mobile platforms, using the latest in
tech trends and market research.





While Hong Kong is known for its skyscrapers, about three-quarters of its 1,104 km² of land is actually countryside.

Whitespace www.whitespace.hk

Whitespace describes itself as: "a design consultancy that provides creative direction, branding and interactive services across various mediums, platforms and time zones for a diverse group of clients." Founded in 2005, it is particularly adept at developing striking brand identities.







Recommended hotspots



Belle Liu Partner **Homei Cafe**

22-24A Tai Ping Shan Street, Sheung Wan

Great coffee and sandwiches aside, this charming little cafe is a sanctuary for me to catch a breath in the sea of emails and deadlines. It's tiny but never noisy or crowded during the week, and I love chatting with the owners who happen to be cat lovers too.



David Yu
Head creative
The Beer Bay
Between Central Pier 3 and 4

In glitzy Hong Kong, it's rare to find a down-to-earth outdoor bar for a cheap beer with a view. The Beer Bay is a tiny stall on the Central waterfront with a selection that belies its size. Grab a HK\$30 draught beer, sit, and enjoy the view of Victoria Harbour.



Wouter De Loose Web developer Cheung Chau

Just a 50 minute ferry ride from Hong Kong Island, Cheung Chau is the perfect place to relax after a long week and get away from the busy city. I love to enjoy the local seafood specialities and chill out on the beach there at night.

trend map 101

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Featured host of the month: Blackfoot Hosting www.blackfoot.co.uk

Offering more reasons for choosing one of the listed providers

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the powerful eCommerce, Profes

registration services since 1999. Specialising in Linux-based servers, housed across three London data centres, Blackfoot promises 24/7 monitoring and a dedicated support team to guarantee uptime

and first-class delivery. Hosting options are available in five flavours ranging from the entry-level Home solution for £40 per year, up to the powerful eCommerce, Professional and Partner packages priced between £100-200. All come with access to the feature-packed cPanel control panel for intuitive maintenance.

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Designwasp (http://designwasp.com)	Windows Unlimited	0844 372 9848	£60	Unlimited	Unlimited	Unlimited	1	1	Х	1	Х	1	1	Х
Designwasp (http://designwasp.com)	Windows Home	0844 372 9848	£40	10GB	50GB	1,000	1	1		1		1	1	X
Designwasp (http://designwasp.com)	CheapHost	0844 372 9848	£10	300MB	100MB	5				1			1	
Digital Gibbon Ltd (http://digitalgibbon.com)	Personal	01865 589 990	£12	1GB	Unlimited	10	1			1	1	1	1	X
Digital Gibbon Ltd (http://digitalgibbon.com)	Personal Plus	01865 589 990	£48	Unlimited	Unlimited	50	1			1	1	1	1	
Digital Gibbon Ltd (http://digitalgibbon.com)	Business	01865 589 990	£108	5GB	Unlimited	1000	1	1		1	1	1	1	×
Digital Gibbon Ltd (http://digitalgibbon.com)	Business Professional	01865 589 990	£132	Unlimited	Unlimited	Unlimited	1	1		1	1	1	1	
Domaincheck (www.domaincheck.co.uk)	Bronze Linux	0191 261 2252	£30	100MB	1GB	5		1	1	1	1	1	1	1
Domaincheck (www.domaincheck.co.uk)	Gold Linux	0191 261 2252	£100	500MB	5GB	25	1	1	1	1	1	1	1	1
Domaincheck (www.domaincheck.co.uk)	Bronze Windows	0191 261 2252	£30	100MB	1GB	5		1	1	1	1	1	1	1
Domaincheck (www.domaincheck.co.uk)	Gold Windows	0191 261 2252	£100	500MB	5GB	25	1	1	1	1	1	1	1	1
Donhost (www.donhost.co.uk)	Reseller Unix	0845 226 5566	£399.99	Unlimited	Unlimited	Unlimited	1		1	1	1	1	1	Х
Donhost (www.donhost.co.uk)	Reseller Windows	0845 226 5566	£499.99	Unlimited	Unlimited	Unlimited	1		1	1	1	1	1	
Donhost (www.donhost.co.uk)	Enterprise	0845 226 5566	£89.99	1GB	2GB	250	1		1	1	1	1	1	Х
Donhost (www.donhost.co.uk)	Commerce	0845 226 5566	£179.99	2GB	5GB	500	1		1	1	1	1	1	
Donhost (www.donhost.co.uk)	Designer	0845 226 5566	£119.99	1GB	2GB	250	1		1	1	1	1	1	Х
Donhost (www.donhost.co.uk)	Developer	0845 226 5566	£259.99	2GB	5GB	500	1		1	1	1	1	1	
eHosting (www.ehosting.com)	Starter	0844 999 4100	£23.88	1GB	25GB	10						1	1	1
eHosting (www.ehosting.com)	Personal	0844 999 4100	£59.88	2.5GB	Unlimited	50	1					1	1	1
eHosting (www.ehosting.com)	Expert	0844 999 4100	£95.88	5GB	Unlimited	250	1					1	1	1
eHosting (www.ehosting.com)	Virtual	0844 999 4100	£227.88	50GB	Unlimited	Unlimited	1				1	1	1	1
Equiphase (www.equiphase.net)	Bronze	0121 314 4865	£30	200MB	2GB	10	1	1		1		1	1	1
Equiphase (www.equiphase.net)	Silver	0121 314 4865	£42	400MB	5GB	20	1	1		1		1	1	1
Equiphase (www.equiphase.net)	Gold	0121 314 4865	£72	800MB	10GB	100	1	1		1		1	1	1
Equiphase (www.equiphase.net)	Platinum	0121 314 4865	£114	1,200MB	40GB	200	1	1	1	1	1	1	1	1
Eurofasthost.com (www.eurofasthost.com)	Email Only	02380 249 823	£40	1GB	2GB	10			1	1	1	1	1	1
Eurofasthost.com (www.eurofasthost.com)	Essential	02380 249 823	£75	2GB	5GB	10			1	1	1	1	1	1
Eurofasthost.com (www.eurofasthost.com)	Superior	02380 249 823	£140	5GB	10GB	25	1	1	1	1	1	1	1	1
Eurofasthost.com (www.eurofasthost.com)	Premium	02380 249 823	£250	10GB	25GB	100	1	1	1	1	1	1	1	1
Evohosting (www.evohosting.co.uk)	Starter	N/A	£29.99	500MB	1GB	3	1	1	1	1		1	1	1
Evohosting (www.evohosting.co.uk)	Home	N/A	£54.99	2.5GB	30GB	50	1	1	1	1		1	1	1
Evohosting (www.evohosting.co.uk)	Business	N/A	£79.99	6.5GB	Unlimited	Unlimited	1	1	1	1		1	1	1
Evohosting (www.evohosting.co.uk)	eCommerce	N/A	£159.99	30GB	Unlimited	Unlimited	1	1	1	1		1	1	1
Giacom (www.giacom.com)	Business Pro	0800 542 7500	£199	100MB	2GB	100	1	1	1	1	1	1	1	1
	Personal	0808 168 6777	£32.87	5GB	Unlimited	50	/	Х	1	/	/	/	1	Х
fasthosts	Business Bronze	0808 168 6777	£58.38	50GB	Unlimited	500	1	Option	1	1	✓	1	1	Х

The state of the s	Dusiness Dronze	00001000111	250.50	300D	Orimirincea	500	•	opuo	•	•	•	•	•	, ,
The second secon	Business Silver	0808 168 6777	£76.39	Unlimited	Unlimited	Unlimited	/	Option	✓	/	1	/	/	X
Fasthosts	Business Gold	0808 168 6777	£101.89	Unlimited	Unlimited	Unlimited	✓	1	1	/	1	1	1	X
www.fasthosts.co.uk	WD Starter	0808 168 6777	£149.99	20GB	Unlimited	Unlimited	/	Option	Option	/	1	/	/	X
	WD Advanced	0808 168 6777	£199.99	Unlimited	Unlimited	Unlimited	1	Option	Option	1	/	/	/	Х
Heart Internet (www.heartinternet.co.uk)	Starter Professional	0845 644 7750	£29.80	2.5GB	10GB	1,000				1		1	1	1
Heart Internet (www.heartinternet.co.uk)	Home Professional	0845 644 7750	£89.99	10GB	50GB	10,000	1	1		1		1	1	1
Heart Internet (www.heartinternet.co.uk)	Business Professional	0845 644 7750	£129.99	Unlimited	Unlimited	Unlimited	1	1		1		1	1	1
Heart Internet (www.heartinternet.co.uk)	Reseller Professional	0845 644 7750	£299.99	Unlimited	Unlimited	Unlimited	1	1		1		1	1	1
Hostway (www.hostway.co.uk)	Silver	0808 180 1880	£79.50	150MG	3GB	5		Option	1	1		1	1	
Hostway (www.hostway.co.uk)	Gold	0808 180 1880	£139.50	300MB	5GB	10	1	Option	1	1	1	1	1	
Hostway (www.hostway.co.uk)	Gold Plus	0808 180 1880	£189.50	450MB	10GB	30	1	Option	1	1	1	1	1	
Hostway (www.hostway.co.uk)	Platinum	0808 180 1880	£359.50	600MB	20GB	50	1	Option	1	1	1	1	1	
Hostway (www.hostway.co.uk)	Platinum Plus	0808 180 1880	£599.50	1.2GB	40GB	10	1	Option	1	1	1	1	1	
Hostway (www.hostway.co.uk)	Email Plus	0808 180 1880	£49.95	50MB	N/A	5	N/A	N/A	N/A	1		1	1	
ICUK www.icukhosting.co.uk	Professional	0845 009 9175	£30	250MB	1GB	50	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Advanced	0845 009 9175	£50	2GB	2.5GB	150	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Enterprise	0845 009 9175	£80	2GB	500MB	Unlimited	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Professional Plus	0845 009 9175	£90	500MB	5GB	100	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Premium Plus	0845 009 9175	£150	1GB	12.5GB	500	1	1	option	1	1	1	/	

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(a) +44 (0)1202 586436		UMBER	YEAR	щ	' BANDWIDTH	'n	E SUPPORT	3 CART	FILTER		JPPORT	PPORT	CONTROL PA	EVEL AC
Continued	PACKAGE	PHONE NUMBER	COST PER	WEB SPACE	MONTHLY	POP3 ACCOUNTS	DATABASE	SHOPPING	VIRUS FIL	FIREWALL	PHONE SUPPOR	EMAIL SUPPORT		RVICE
NAME AND URL	PA	품	CO	W	M	PO	DA	S	N N	臣	폾	E	WEB	SEI
ICUK www.icukhosting.co.uk	Enterprise Plus	0845 009 9175	£300	2GB	20GB	Unlimited	1	1	option	1	1	1	1	Х
ICUK www.icukhosting.co.uk	Reseller Windows	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Reseller Linux	0845 009 9175	£200	Unlimited	Unlimited	Unlimited	1	1	option	1	1	1	1	
ICUK www.icukhosting.co.uk	Reseller Enterprise	0845 009 9175	£500	Unlimited	Unlimited	Unlimited	1	1	option	1	1	/	1	
JAB Web Hosting (www.jabwebhosting.com)	Mail - M105	0800 043 0153	£15.17	256MB	3GB	50				1	1	1	1	1
JAB Web Hosting (www.jabwebhosting.com)	Home - H25	0800 043 0153	£24.47	1GB	8GB	50	1			1	1	1	1	1
JAB Web Hosting (www.jabwebhosting.com)	Professional - P55	0800 043 0153	£45	2GB	15GB	75	1	1		1	1	1	1	1
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R25	0800 043 0153	£97.88	2GB	30GB	250	1	1		1	1	1	1	1
JAB Web Hosting (www.jabwebhosting.com)	Reseller - R105	0800 043 0153	£271.60	4GB	Unlimited	Unlimited	1	1		1	1	1	1	1
LCN (www.lcn.com)	Blog	01438 342 490	£20	100MB	1GB	5			1	1	1	1	1	1
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10			1	1	1	1	1	/
LCN (www.lcn.com)	Starter	01438 342 490	£30	1GB	1GB	10			1	/	1	1	1	/
LCN (www.lcn.com)	Dynamic	01438 342 490	£50	2GB	2GB	20	1	1	✓	1	1	1	1	/
LCN (www.lcn.com)	Premium	01438 342 490	£80	5GB	5GB	50	1	1	1	1	1	1	1	1
LCN (www.lcn.com)	Unlimited	01438 342 490	£120	Unlimited	Unlimited	Unlimited	1	1	✓	1	1	1	1	1
LD Hosts (http://ldhosts.co.uk)	LD Budget (Linux)	07891235858	£11.88	1GB	1GB	500	1	1		1	1	1	1	
LD Hosts (http://ldhosts.co.uk)	LD Home (Linux)	07891235858	£23.88	10GB	10GB	5,000	1	1		1	1	1	1	
LD Hosts (http://ldhosts.co.uk)	LD Pro (Linux)	07891 235858	£41.88	50GB	50GB	20,000	1	1		1	1	1	1	
LD Hosts (http://ldhosts.co.uk)	LD Unlimited (Linux)	07891 235858	£60	Unlimited	Unlimited	Unlimited	1	1		1	1	1	1	
LD Hosts (http://ldhosts.co.uk)	Windows Home	07891 235858	£17.88	2GB	2GB	1,000	1	1		1	1	1	1	
LD Hosts (http://ldhosts.co.uk)	Windows Unlimited	07891 235858	£60	Unlimited	Unlimited	Unlimited	1	1		1	1	1	1	
Media Temple (http://mediatemple.net)	Shared-Server Pro	+1 310 841 5500	£64	2GB	1TB	1,000	1	1	1	1	1	1	1	/
NI	EMAIL ONLY	01604 212 904	£11.99	2.5GB	15GB	10	Х	Х	/	/	1	/	1	/
NameHOG	STARTER	01604 212 904	£36.99	10GB	150GB	Unlimited	Х	X	/	/	/	/	/	/
Affordable Internet Solutions	HOME PRO	01604 212 904	£59.99	25GB	Unlimited	Unlimited	/	1	1	/	1	/	/	/
NameHOG www.namehog.net	BUSINESS	01604 212 904	£109.99	Unlimited	Unlimited	Unlimited	1	1	/	1	1	1	1	1
Namesco (www.names.co.uk)	StartUp Plus	0845 363 3632	£89.99	500MB	5GB	10	1	/	/	1	1	1	/	1
Namesco (www.names.co.uk)	Business	0845 363 3632	£149.99	2,000MB	20GB	100			/	/	1	/	1	/
Namesco (www.names.co.uk)	Business Plus	0845 363 3632	£89.99	3,000MB	30GB	200	/	/	/	1	1	/	/	/
Namesco (www.names.co.uk)	Designer	0845 363 3632	£239.88	1GB	20GB	200	/	/	/	/	/	/	/	/
Namesco (www.names.co.uk)	Designer Plus	0845 363 3632	£479.88	Unlimited	30GB	Unlimited	/	/	/	/	/	/	/	/
Traineses (WWW.man.esico.au)	- · · ·	00 10 000 0002	•		5005		•		· · ·		•			
TT NAME OF THE OWNER OWNER OF THE OWNER OW	DEVELOPER	0800 061 2801	£32.89	1GB	Unlimited	500	✓.	/	/	/	/	✓.	/	/
NETCETERA	ONE	0800 061 2801	£109.99	5GB	Unlimited	1000	<i>'</i>	✓	/	/	/	✓.	/	/
	RESELLER	0800 061 2801	£274.89	Unlimited	Unlimited	1000	/	/	1	1	/	/	1	/
Netcetera www.netcetera.co.uk	VM500 Server	0800 061 2801	£300	20GB	Unlimited	Unlimited	<i>'</i>	/	/	1	/	1	√	1
	2200DC Server	0800 061 2801	£720	160GB	Unlimited	Unlimited	1	/	<i>'</i>	1	/	1	/	<i>\</i>
	3000DC Server	0800 061 2801	£1,200		Unlimited		1	1	<i>'</i>	1	<i>'</i>	/	<i>'</i>	1
	2600QC Server	0800 061 2801	£1,800	2x500GB	Unlimited	Unlimited	/	/	1	/	/	/	/	/
Netplan (www.netplan.co.uk)	Shared 100	0207 1000 424	£60	100MB	1GB	5	1	1	1	/	/	1	/	✓
Netplan (www.netplan.co.uk)	VS100	0207 1000 424	£600	5GB	5GB	5	/	1	1	1	1	1	/	1
Netplan (www.netplan.co.uk)	VS200	0207 1000 424	£1,000	10GB	10GB	10	/	1	1	/	1	1	/	/
Netplan (www.netplan.co.uk)	VS300	0207 1000 424	£2,000	15GB	50GB	20	/	1	1	/	1	1	/	/
Netplan (www.netplan.co.uk)	Dedicated Servers	0207 1000 424	£3,000+	73GB+	1,500GB	100+	/	✓	1	/	/	/	✓	/
PurplePaw (www.purplepaw.co.uk)	Email	N/A	£25	100MB	1GB	10			1	1		1	1	
PurplePaw (www.purplepaw.co.uk)	Play	N/A	£40	100MB	1GB	10			1	1		1	1	
PurplePaw (www.purplepaw.co.uk)	Plus	N/A	£65	750MB	5GB	25	1	1	1	1		1	1	
	Danner	N/A	£95	2GB	10GB	100	1	1	1	/		1	1	
PurplePaw (www.purplepaw.co.uk)	Power													
	R3 Reseller	N/A	£660	10GB	50GB	Unlimited	1	1	1	1		1	1	
PurplePaw (www.purplepaw.co.uk)				10GB 1GB	50GB Unlimited	Unlimited 10	1	√ ×	√ √	1	×	1	1	
PurplePaw (www.purplepaw.co.uk) PurplePaw (www.purplepaw.co.uk)	R3 Reseller	N/A	£660					✓ ×			× ✓			1
PurplePaw (www.purplepaw.co.uk) PurplePaw (www.purplepaw.co.uk) Reddex UK (www.reddexuk.com)	R3 Reseller Reddex Design Starter	N/A 0843 289 4625	£660 £18	1GB	Unlimited	10	1		1	1		1	1	1
PurplePaw (www.purplepaw.co.uk) PurplePaw (www.purplepaw.co.uk) Reddex UK (www.reddexuk.com) Reddex UK (www.reddexuk.com)	R3 Reseller Reddex Design Starter Reddex Design Business	N/A 0843 289 4625 0843 289 4625	£660 £18 £59.88	1GB 1OGB	Unlimited Unlimited	10 100	✓ ✓	×	√ ✓	1	1	1	√ √	/ / /

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Skymarket (www.skymarket.co.uk)





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NAME AND URL	PAG
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Skymarket (www.skymarket.co.uk)	Premium 2
STRATO Hosting (www.strato-hosting.co.uk)	STRATO BasicWeb
STRATO Hosting (www.strato-hosting.co.uk)	STRATO PowerWeb
STRATO Hosting (www.strato-hosting.co.uk)	STRATO AdvancedWeb
STRATO Hosting (www.strato-hosting.co.uk)	STRATO EnterpriseWeb
Streamline.net (www.streamline.net)	Trial (3 month)
Streamline.net (www.streamline.net)	Starter
Streamline.net (www.streamline.net)	Personal
Streamline.net (www.streamline.net)	Plus
Streamline.net (www.streamline.net)	Multisite
Swish Hosting (www.swishhosting.co.uk)	Email
Swish Hosting (www.swishhosting.co.uk)	Windows Hosting
Swish Hosting (www.swishhosting.co.uk)	Linux Hosting
Swish Hosting (www.swishhosting.co.uk)	eCommerce
Swish Hosting (www.swishhosting.co.uk)	SiteBuilder
Switch Media (www.switchmedia.com)	Switch Standard
Switch Media (www.switchmedia.com)	Switch Business
Switch Media (www.switchmedia.com)	Business Pro
thename.co.uk (www.thename.co.uk)	Parking
thename.co.uk (www.thename.co.uk)	Forwarding
thename.co.uk (www.thename.co.uk)	Hosting
Tidy Web Hosting (www.tidywebhosting.co.uk)	Entry
Tidy Web Hosting (www.tidywebhosting.co.uk)	Home
Tidy Web Hosting (www.tidywebhosting.co.uk)	HomePro
Tidy Web Hosting (www.tidywebhosting.co.uk)	Business
Tidy Web Hosting (www.tidywebhosting.co.uk)	BusinessPro
TwentyHost (www.twentyhost.co.uk)	Basic5S
TwentyHost (www.twentyhost.co.uk)	Standard5S
TwentyHost (www.twentyhost.co.uk)	Business5S

Web Wiz (www.webwiz.co.uk)	
Web Wiz (www.webwiz.co.uk)	
Zen Internet www.zen.co.uk	

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COST PER YEAR	
£99	
£149	

£72

£120

£180

N/A

£23.88

£41.88

£71.88

£137.88

£18

£66

£66

£90

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£159

£249

£348.96

£52.88

From £15

From £7.50

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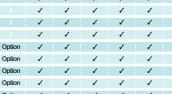
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300GB 5000 500MB 15 500MB N/A N/A N/A 1GB 5GB Unlimited 10GB Unlimited 20GB Unlimited

50GB 100MB 1,500MB 25 200MB 3.000MB 50 1 500MB 7500MB 100 1,000ME 15,000MB 200 10GB 10 2GB 4GB 100GB 100

£107.40 50GB 1,000 £179.40 10GB 150GB 1,500 £227,40 20GB 300GB 5.000 1 £329 99 Unlimited Unlimited Unlimited 1 1 25GB 100 £149.95 4GB 100GB 500 1 £199.95 5GB 25GB 500 1

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TwentyHost (www.twentyhost.co.uk)

VARiHOST (www.varihost.net)

VARiHOST (www.varihost.net)

VARiHOST (www.varihost.net)

WebFusion (www.webfusion.co.uk)

WebFusion (www.webfusion.co.uk)

WebFusion (www.webfusion.co.uk)

WebFusion (www.webfusion.co.uk)

Web Wiz (www.webwiz.co.uk)

Bronze (Linux) Silver (Linux) Gold (Linux) Platinum (Linux) Reseller (Linux) Designer (Windows)

WordPress Basic

WordPress Plus

WordPress Extra

Fusion Business

Fusion Developer

Windows Professional

Windows Starter Reseller

Fusion Reseller

Fusion Profession

0845 058 9000 Developer (Windows) 0845 058 9000

0845 058 9000 0845 058 9000 0845 058 9000 0845 058 9000 0845 058 9000

£95.88 £143.88 £239.88 £47988 £59.88

£179.88

£47.88 2GB 5GB 10GB 50GB 150GB

2GB

10GB

50GB 100GB 250GB 500GB

100GB

Unlimited

20GB 25 50 100 250 20GB

Unlimited

Golden rules to top hosting

The best resources for you

Selecting your ideal package is largely determined by the kinds of resources and quantity of features you require from your hosting solution. Key criteria like web space and monthly bandwidth are important for those services likely to be subjected to heavy amounts of traffic, which is why package solutions for enterprise applications are typically much more expensive. The general rule of thumb is not to buy more than you need or underestimate potential requirements.



Competitive and reliable

The hosting market is big business and hosting providers do try to drive prices down in a bid to entice your custom. Use our chart to compare costs, but be sure to visit the vendor websites to keep track of the latest deals, as they change. Remember that low price should not always be a deciding factor and that paying a premium for a more reliable, trusted and experienced vendor can offer you much better value for money in the long term



Putting you in control

Modern hosting is all about giving customers the power to set up, monitor and maintain their web space with minimal fuss. Most commercial vendors offer access to award-winning and intuitive control panels that enable you to log in remotely and intuitively tweak your account. without the need to relay complicated instructions down the phone. Be sure to find out from your potential host as much as you can about the control panel and request a demo

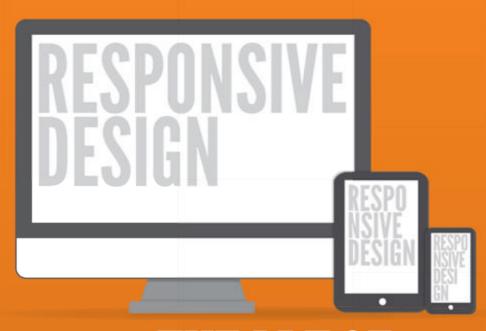


Fantastic customer support

If all else fails and you need som extra help to get your hosting back online, then a commitment to future customer support is key. Many vendors offer a service-level agreement which outlines what you can expect here, however most will be more explicit about whether phone support is included or email contact is preferred. Think about what you need for peace of mind and factor good, comprehensive technical support against the price

107 hosting listings

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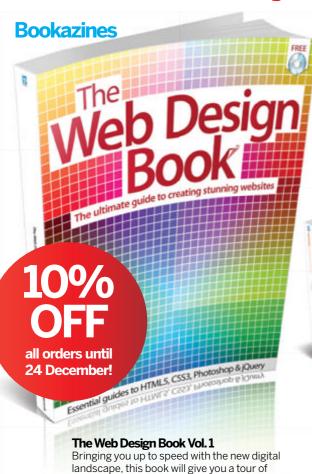
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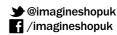
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<style relic> McLaren

2000

Tables

The layout is dictated by tables, along with a host of nested tables. Designed for typical resolutions of the time, the containing table is set to 100% so that it can accommodate all resolutions it needs to.

Rollovers

The bottom navigation elements used the old favourite of rollover images. A combination of onmouseover and onmouseout commands dictated how the elements operated.



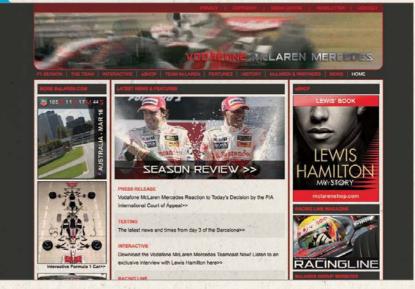
Web design relic

Frames

The site is split into three separate frames. The top frame contains the wave background image, the middle frame contains the main content of the site, while the bottom frame contains the navigation elements aligned in a neat row. It's almost a precursor to div tags.



2(0.0)7



McLaren www.mclaren.com

The Formula 1 racing legend is at the forefront of technology on the track. But, has its website followed the same path?

McLaren has been successful far longer than it has had a web presence, with the first site appearing around 1998. The first incarnation did little to reflect the success or brand of the company. In 2000, the website embraced the McLaren colours and brand along with a design that defined the technology of the time. At the

turn of the century the design soon became dated, but it took until 2006 for changes to be made. Again, the site design was functional rather than glittering or inspiring. The site was still failing to represent McLaren, but in 2010 its design finally took a forward step with a style and technology worthy of the brand.

In 2000, the website embraced the McLaren brand along with a design that defined the technology of the time





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